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Assyrian Deeds and Documents

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Assyrian Deeds and Documents

Recording the Transfer of Property

Including the so-called private contracts, legal decisions and proclamations preserved in the Kouyunjik Collections of the British Museum

Chiefly of the 7th Century B.C.

COPIED, COLLATED, ARRANGED, ABSTRACTED, ANNOTATED AND INDEXED

BY

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VOL. II.

ADDITIONAL CUNEIFORM TEXTS
INTRODUCTION—OFFICIALS—METROLOGY

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TO HIS GRACE

THE DUKE OF PORTLAND

THESE PAGES ARE (WITH HIS PERMISSION)

DEDICATED

BY

HIS GRACE'S MOST OBLIGED AND FAITHFUL SERVANT

THE AUTHOR.

PREFACE.

THE delay in the appearance of the long promised second volume of Assyrian Deeds and Documents is mainly due to a cause which I can only regret. The additional texts given here are the only excuse I can offer. My purpose was to include in the first volume the cuneiform texts of all the Assyrian deeds and documents relating to the transfer of property, which were known to be in the Kouyunjik Collections of the British Museum. Unguardedly, I assumed that such would be described in the Catalogue as 'contracts, proclamations, or legal decisions.' It did not occur to me that texts of a similar nature would be found under the headings of 'historical inscriptions, letters or reports, notes, memoranda or lists.' So far as I am aware the first volume does contain all such texts as were placed under the headings of 'contracts, proclamations, or legal decisions.' The lithography of those texts was almost complete, when by mere accident I discovered that similar texts had to be looked for elsewhere. This was a great disappointment. I had hoped to make the collection of texts complete. Now it seems impossible to secure such a result without the examination of thousands of other fragments.

The texts now added are the result of an examination of the classes given in the Index Volume of the Catalogue as 'lists of animals, of buildings, estates, fields, houses, etc.; of cities and countries; of contributions, offerings, or taxes, of the members of certain families, their property, etc.; of liquids; of officials; of persons; and of various objects.' In addition a number of 'historical texts, reports, notes, memoranda, etc.,' have been examined; in all about two thousand texts. These have yielded some thirty texts of the kind which should have been included in Volume I. The other fragments were found to be more or less accurately described.

The separation of the 'so-called contracts,' the deeds and charters, legal decisions and acknowledgements of debt, from the closely allied classes of memoranda, schedules, and inventories was not attempted in earlier publications. In making such a separation, I perhaps made needless trouble for myself. At any rate, the allied classes throw so much light on the contents of Volume I., that once they were copied, it seemed purposeless to withhold them from publication. They have a distinct value and interest of their own, and it is not easy to see in what other publication they could more fittingly appear. The classes themselves are not consistently kept distinct in the Catalogue. What appears as 'a list of animals' in one place must be grouped with texts elsewhere classed as 'lists of offerings,' or of 'liquids.' A number of those classed as 'lists of members of certain families, their property, etc.' form the remains of a Census of the district about Haran, and are being published under the title of 'An Assyrian Doomsday Book,' as a Volume of Haupt and Delitzsch's *Assyriologische Bibliothek*. Some of the lists of animals are really fragments of letters or reports concerning the transport of horses, similar to those published in Harper's *Assyrian and Babylonian Letters*, pp. 57, 59, etc. I have not included such 'transport' reports here. Many others are either too fragmentary, or too obscure, to classify without a careful and exhaustive study. Much light may be expected on others from the publication of other classes of texts, with which I have no acquaintance at present.

What was to have appeared as Volume II. was finished in manuscript, by the end of November, 1899, and some 300 pages are here printed. I purpose to issue the rest as Volume III., as rapidly as I can get it printed. I must beg the indulgence of my readers, in view of the considerable addition which has been made to my task by the inclusion of further examples of classes which were regarded as complete. I should esteem it a favour also if they would notify to me the occurrence of texts similar to those here published, in other classes which they have examined. Any such notification would be duly and gratefully acknowledged by me.

In the additional texts, as here published, I have departed from the method of presentation adopted in Volume I. Some reviews of that volume have appeared which shew that the method was not approved. Consequently I have now indicated a broken or rubbed surface by shading, and, where this shading extends over the whole or part of a character, that character must be regarded as uncertain.

I have also offered alternative readings in the margin, suggested by a knowledge of parallel passages or by a repeated collation of the text. For all such uncertain readings I naturally decline any great responsibility. The text may be as I give it, or as I suggest in the margin, that is as far as I will go. Had I the time to give to the repeated examination of these texts, which I was able to give to those in the first volume, I might feel and indicate more certainty. It is to be hoped others, more skilled, may be tempted to decide what is here left open.

A few words may be pardoned me, if I call attention to some points of interest in these new texts.

Nos. 717—733 are fragments of texts similar to those in Volume I., deeds of sale, an advance of corn, list of prices, etc. Nos. 734—740 are possible fragments of 'proclamations' or charters, or of the schedules to them. Nos. 741—752 are schedules, or inventories of estates, such as are actually embodied in some charters. Thus, no. 741 contains the inventory or schedule of the estate owned by Nabûšarruṣur, which estate was enfranchised by the charter of Ašurbânipal, no. 646, in Volume I. That others are closely related, in a similar manner, to the contemporary charters, nos. 647 and 648, seems probable. Nos. 753—761 are placed together because Dr Peiser, in his review of Volume I. seemed to think they ought to have been included there. With the texts before him, the reader may judge how far this was a fair criticism. No. 763 contains an interesting list of names, perhaps of Egyptian slaves. Nos. 765—771 are most of them short inscriptions on circular pieces of clay, bearing a royal seal impression. No. 773 enumerates fields in various localities, perhaps all in Syria. The name Bambuki, in line 5, suggests the Greek Bambyke-Heliopolis-Mappug. No. 777 seems to give an estimate of the dimensions of Noah's Ark and a list of the animals in it. No real building could be '390 cubits long, 150 cubits broad and 660 cubits high.' Nos. 779—782 are Assyrian private contracts, published originally by P. V. Scheil, in *Rec. de Trav.* 1898, p. 202 ff. They are given here, with some conjectural emendations, for comparison with the Kouyunjik style of deeds. Nos. 784—800 are fragments of 'contracts,' not entered in the Catalogue, and pointed out to me by Mr R. C. Thompson. I have not been able, as yet, to join them to any other fragments.

Some joins, which have been made since the appearance of Volume I., seemed to demand the republication of their constituent

fragments, in order to present an easily intelligible result. Thus no. 801 consists of nos. 199, 529, 530, and 609. So no. 802 consists of no. 283 and what was entered in the Catalogue as 'part of a letter or report.' No. 803 consists of nos. 399 and 488. No. 804 consists of nos. 441, 560, and 582, which all join what was entered as 'a historical text, probably a report.' The fragments would not join one another until this connecting link had been discovered. No. 805 consists of nos. 575 and 579 and seems to be part of no. 490, though it does not actually join it. The examination of K 13112, entered as 'part of a list of items of expenditure, etc.' led to the joining of no. 626 to it and to 82—3—23, 87, 'part of a list of fields, etc., probably belonging to a report.' The complete text of these four fragments now appears as no. 806. The fragment of Ašuredililî's charter, which appeared, in Volume I., as no. 649, has had three further fragments added and now appears as no. 807. In no. 808 we have a join of no. 656 to K 2844, described in the Catalogue 'as probably belonging to a report.' I consider that it belongs to no. 655, but does not join it now.

A very interesting text, almost complete, is formed by joining nos. 660 and 714 to K 1989, published by Dr H. Winckler in his *Sammlung von Keilschrifttexten*, 1893, p. 5. The fragment 83—1—18, 425 does not actually join these portions, but evidently belongs to the same tablet, and the combined text appears as no. 809. Sargon II., when founding his city of Dûr-Sargon, had evidently absorbed some land belonging to an old endowment of Ašur in Maganûba. He now restores the endowment, field for field, elsewhere, and adds considerably to its extent. This land is settled on the surviving representatives of the priests, who had received the original endowment from Adadi-nirari. The whole forms an important contribution to history and is dated May B.C. 714: 'given at Nineveh.'

No. 810 is part of a letter enumerating the *mandattu*, or 'allowances' to the officials of the royal household, and forms an interesting parallel to several lists which occur later in the volume, see nos. 822, 922, and especially no. 1036.

No. 812 is a memorandum of sums expended for various articles, and is important for the question of prices at this epoch. The markets of Ḥarran and Kumuḥ are there named, and several unusual turns of expression are noteworthy. A number of tablets dealing with sums of money, due to or from certain persons, and

assignments of property of different sorts to various persons, follow in nos. 813—816, compare further, nos. 960, 961, 986. These may well be a Steward's accounts. Despite their great similarity I have been able to make few joins, and the tablets are so fragmentary that their exact purpose is difficult to determine.

Some texts seem to be inventories of goods served out to certain officials, e.g. nos. 758, 971. Among these are some interesting lists of articles of gold and silver, nos. 1079, 928, 931, 932, 929, 940. One fragment appears to be a list of property belonging to prince Ašur-mukîn-palêia, perhaps presented to him by his brother Ašur-bânipal on his elevation to some high dignity. It is interesting to note among the treasures certain tablets. This list is dated B.C. 646 (?), see no. 1053.

The lists of officials, with their offices, are of interest both for the proper names and for the titles in themselves. They also serve to fix the contemporaries of each person, and so indirectly help to date other texts, at least approximately. A list of the governors of the chief states, at one date, such as given by nos. 853, 854, is only second in interest to one shewing the succession of governors, such as no. 1098, which is really an Eponym Canon. These officials are grouped with some higher official, as the Crown Prince or the Rabshakeh, but whether as responsible to him or as his guests, does not appear. In one case, no. 860, a large number of officials are divided into groups, and each group is to stay, either with some high court official, or in some specified locality. This seems to throw light on such long lists as no. 857, already partly published by Dr Bezold, in *P. S. B. A.* XI., part 7, plates IV.—V. The king was about to give a great feast to the 'chief estates' of his realm and these are lists of the guests. Such at least seems probable. Compare nos. 833, 840, 841, 850, 858, 866.

In some few cases, the shape of the tablet and the way the names are inscribed leads me to suppose that we have the remains of a list of witnesses: e.g. nos. 607, 862, and 868.

One or two long lists of females occur, with some interesting titles attached to them. Thus from no. 827 we incidentally learn that women were so well educated as to be able to write. Further, 'female Aramaic scribes,' six of them, may imply that they could write both Cuneiform and Aramaic, though that is not quite necessary to believe. Compare nos. 828, 894, 901, 914.

The lists of slaves are a witness, by the names recorded, to the

nationalities furnishing these essentials for domestic comfort. They do not, however, make any noteworthy addition to our knowledge on this subject. The prices paid for slaves form one branch of the social aspect of life in Assyria, which will be fully discussed as soon as I can get the chapter on slaves through the press. Other slave lists are nos. 912, 913, 910, 911, 771, 783, 811, 878, 906, 825, 882, 855, 1099, etc., though possibly some of these are of somewhat more special character.

The constitution of the army has been discussed incidentally, in Chapter II. §§ 224—225, but lists of the archers and spearmen under the command of certain officers will prove interesting. Such are nos. 855, 856, 861, 947, etc.

Very interesting are the building lists of beams, etc., for repairs in different cities, see nos. 915, 916, 917, 982, 983, with their curious specifications of dimensions.

The lists of pots and pans, nos. 963, 964, etc., are valuable as giving the names, and perhaps the capacities also of the vessels in use in Assyria.

The lists of animals, e.g. nos. 699, 732 (with prices), 753, 754, 988—997, 1057, 1103, 1104, etc., are very informing as to the terms applied to sheep and cattle of different ages, sex, or condition.

In the case of nos. 755, 972, the Catalogue puts 'animals' in place of 'fields,' or homers of land.

The 'weaving lists,' or lists of quantities of wool served out to various persons, or the weavers in certain cities, form an interesting little class, not yet much studied. Such are nos. 950—959, and 973—975.

The text, no. 976, is interesting for the high numbers it records.

Many interesting questions are involved in the relations of the ritual with the sacrificial offerings to the gods. Professor H. Zimmern's monumental work on the ritual tablets, prescribing the ceremonies to be used by the seers, conjurors and singers in their offices, bids fair to place our knowledge on a higher level. What has already appeared in his *Beiträge zur Kenntnis der Babylonischen Religion* is priceless for a comparison with the Mosaic ritual. Dr John Jeremias in his *Cultustafel von Sippar* has also worked out the comparison with the Phoenician ritual. But never yet has the full list of articles actually offered as customary, *ginû*, to Assyrian gods, been made available. In nos. 998—1019, 1020—1025, 1027—1031, 1037, 1038, 1056, etc., we have a set of texts which supple-

ment, illustrate and explain each other in a remarkable way. On the whole, they go far to settle the meaning and the nature of the offerings to the gods in Assyria. When taken in combination with the directions for performing the ceremonies in worship, they will almost complete the picture of what went on in an Assyrian temple. Incidentally they throw light on the measures of capacity in use, and prove that the number of *ḳa* in the *gur* was the same as in later Babylonian times.

What appears to be a list of aromatic woods for incense occurs in no. 1074, and a very extensive inventory of the dues to a certain temple in no. 1077. Among the lists of animals, several appear to be lists of sacrifices to the gods, such are perhaps nos. 995, 997, 1035.

Whether there was complete religious tolerance in Assyria may be questioned. The Assyrians shewed great readiness to pay homage to other gods than their own. Assyrian kings record their worship of local divinities outside their own land, and the personal names shew that some men, even if only those of foreign extraction, kept up the cult of foreign gods in Assyria. True the warrior warred, as the emissary of Ašur, on those who despised his gods; but it is rare to find any attempt at proselytizing, or persecution on the ground of religious belief. This renders all the more significant a list of people 'who fear not god,' in no. 826. We may wonder what god they had refused to worship, or whether they professed to worship none at all.

This short review of the contents of the additional texts is not meant to be exhaustive but to indicate briefly some of the treasures contained in them. Had the time at my disposal allowed of copying all these texts first, I should have been able to arrange those similar to each other side by side, as was done more or less completely in the first volume. But after copying a class I invariably found similar tablets in another class. Hence I must leave the classification for the comments on the individual texts. I shall be glad of any hints as to the meaning and purpose of the more obscure texts, which would help to a classification of them.

In view of the importance of the proper names among the Assyrians, as bearing on the nature of popular religious conceptions, and in the belief that any further light on the readings of proper names must be welcome, I have added a few lists of Specimen Names. Of these lists one has already been published in II. R. 63 f., but a collated copy, with some additions from a joined fragment,

should be welcome. The other lists are I believe now published for the first time. The lists of female names are specially interesting, as so few are otherwise known to us.

The reconstruction of the text, known as Sargon 12, from a tablet preserved in the Louvre, is made from the extracts given in Strassmaier's *Alphabetisches Verzeichniss*, nos. 1, 28, 59, 249, 339, 348, 431, 549, 651, 720, 724, 729, 880, 1090, 1119, 1210, 1404, 1426, 1749, 1885, 2091, 2882, 3089, 3672, 3882, 4162, 4513, 4599, 4820, 4840, 4963, 5048, 5060, 5071, 5745, 5748, 5832, 6843, 7529, 7839, 7977, 7978, 8879. I may have overlooked some passages and shall therefore be grateful to anyone who will send me notification of them. The document was clearly concerned with a sale of some land to the king's scribe. As this land was situated in or near Dûr-Sargon, we may suppose it to be part of the land purchased for the king's buildings there. As such it would be very interesting, if a complete text could be published. Probably the first part of it is so badly preserved as to be practically illegible.

With respect to the three introductory chapters here published, I cannot regard them as complete. Much remains to be said on most of the points raised and many opinions expressed will have to be modified later, no doubt. These chapters have been revised by Professor Dr P. Jensen, of Marburg, while passing through the press. Almost every page owes something to his kind corrections, and I desire here publicly to express my deep gratitude to him for the incessant labour which he has expended on the proofs. At the same time he must not be held responsible for any of the opinions expressed here, nor for the estimates given of the work done by other scholars. Such opinions and estimates were formed by me quite independently and are often here given, in spite of his friendly protest. If they call forth a successful vindication of the views they attack, it will be a service to truth; but if they turn out to be a merited exposure of error they will be equally useful. But in any case it is to be hoped that no error of mine will be imputed to another, and that my obstinacy will not compromise one whose advice I have failed to follow.

There may seem to some readers to be an undue propensity to point out errors: especially on the part of one who has so many of his own to admit. Yet what is one to do? Anyone who has taken the pains to find out the truth will know that earlier writers, whose attention was probably wisely and rightly directed to the main points,

which they wished to establish, and did establish to the great gain of those who come after, yet made small slips in matters of detail. In subsequent investigations, these points become the really important details to settle. Then commences a struggle between a just reverence for the worthy past and a due regard for that still nobler ideal which they had reverenced none the less for their unconscious lapses. It is given to all beginners and particularly to those who are dull of apprehension to find difficulties in what they read. To find difficulties is too often the preliminary to finding errors. To pass them by unnoticed would only be to perpetuate them.

When therefore it is needful to refer to a great man's work, it need not surprise the candid reader to find only his mistakes referred to. One could not be expected to refer to all he had done right, he would not be a great man if all that could be got into such narrow limits. The man who has made few errors has done little else, the man that resents the discovery of them is little in himself. Nothing can so please him who belongs to the future, as that his work should have stimulated others so far to follow in his footsteps as to find out when he slipped.

When therefore it was said of the Catalogue that I failed to comprehend its meaning and to see why certain tablets were called this or that, it need not be taken that I arrogated to myself greater knowledge than Professor Dr Bezold, nor that I had solved the mysteries which defied his powers, merely that in some transcendental flights of positive assertion a meaner intellect staggered and ignominiously failed to follow. I have now to confess the same feebleness in many other cases. The views I take may be absolutely inadequate, my powers of thought incapable of coping with these greater matters; would that I could say with truth that I have not meddled with things too high for me. Yet I may seek some mercy for that my very foolishness has found, in virtue of its simplicity, a place where it may abide, in the omissions and oversights and perhaps suppressions of those that are greater than I.

I have ventured to name suppressions, because it often seems impossible to assume ignorance, and we all know how great a temptation it is, at times, not to make all we know common property. What we have won at so great a cost, why should we give it away for nothing? It must be the oft-felt motive of what otherwise would seem ignorance. There is then no great harm in supposing that many statements, inconsistent with fact, were con-

sciously so. I would not like to say of any man, that he knew but was unwilling to tell the truth, because to my powers of thought that seems akin to falsehood. Nor do I like to say of any man that he is ignorant of what he has seen and read and written of. Yet when the facts and the things written of them appear to me inconsistent, let not the reader blame me that I say so; rather if my want of insight may be turned that way let me be blessed for having given him a cause to laugh in a mirthless age.

And at the last analysis let him remember that those differences of intellectual power which are so conspicuous to one who shall compare this work with the masterpieces of Assyriology, are after all small details compared with the mass of truth that is common property. Despite the unfavourable impression which this raw presentation of facts may produce on one used to the exquisite polish of literary achievements such as have been written of these things before: yet there may be some value in its very crudeness. The facts may be less hid for the absence of preservative wrappings and have an appeal of their own to make.

To run down an error and replace it by truth, even when the truth is less attractive, is a pleasure which few have lost the power of sharing with me. To find out one's own errors gives quite as much pleasure as to find out another's, the pain lies in having made them, not in pointing them out. The reader can hardly grudge me a pleasure which I share with himself, while the pain that goes with it for me is confined to myself. It is far pleasanter to print a long list of errata than to know they exist and ignore them. Nor shall I grudge any man the delight of finding the errors I have left undetected, let him share it by telling the world and me.

I fear it will try the patience of the reader to find that so often I am unable to understand this, that, or the other, in the writings of great men or the meanings of small facts. He may rather rejoice that so much that is obvious is left for him to point out. At the same time let him grant me the kindly pity due to those more feebly endowed with the sense of the obvious. It is a great power to see what is clear, and to dispense with the slow process of argument by flashes of insight. Yet the writings of genius must always appeal to the few and do great violence to facts: while facts and the many are destined to win in the end.

In August, 1898, Professor Dr Oppert read a paper at the meeting of the Academy of 'Inscriptions et Belles Lettres,' in Paris,

in which he discussed many of the texts published in Volume I. This afterwards appeared under the title *Le droit de retrait lignager à Ninive*, in the *Comptes rendus* of that Academy for 1898. This paper presents many of the texts in translation, and is specially valuable for the discussion of the chronology. The numerous points raised and in many cases solved in this article, as well as some points on which I hold a different opinion, will be dealt with as they arise in the comments to be given later on the texts which suggest them. Anything that comes from the revered author of *Documents Juridiques* must be treated with respect: and this article evidently embodied the mature results of a lifelong study of the subject. I am deeply grateful for such an introduction of my work to the public notice. The article sets forth many of the most interesting features of the 'contracts,' and gives them an interest that few would expect to find in legal documents.

Mr T. G. Pinches, in the *Journal of the Royal Asiatic Society*, Nov. 1898, pp. 893—897, contributed a most friendly notice of Volume I. He seems to have taken the trouble to notice the purpose of my arrangement. He draws an instructive parallel and contrast between the Assyrian and Babylonian contracts, and notes the archaisms of Assyrian usages. He gives useful translations of several documents, and gives an indication of the value and interest of the subject.

Dr Peiser's review of my Volume I., in Volume II. of *Orientalistische Litteratur-Zeitung*, for January, 1899, was a welcome surprise. I have to recognise the generosity with which he has found praise for what must have been a disappointment to him. I am all the more pleased that he found so little fault with my texts, because he alone, perhaps, had really read most of them before me. On some points I may remark here, leaving others for notice in the place where they are most germane to the matter in hand. It is clear that he also came to the conclusion that Dr Bezold's description of some tablets in the Catalogue was not entirely satisfactory. He points out that I publish certain numbers which are not 'contracts' at all, though so described in the Catalogue. Such are nos. 539, 682, 691, 541, 543. I could not of course know that these were already known not to be 'contracts.' I am sure English reviewers would have blamed me for omitting them. They would not have imagined that the Catalogue was wrong. Nor could Continental reviewers have known unless they had the texts before them. The place assigned

to them indicated my opinion of their nature. Dr Peiser, however, suggests that I ought to have included others, as K. 123, 1014, 1145, 1232, 1254, 1255, 1265, 1293, 1387, 1404, &c., &c. But these did not, as described in the Catalogue, fall within my range. I am glad to know that in Dr Peiser's opinion they do. I have, of course, now copied them and thank him for letting me know of them. They are among the new texts. As to those in Babylonian script, there are some which deserve a place in the Appendix, as he suggests. They were probably enough found at Nineveh. They in some respects mark a transition between Assyrian and Babylonian contracts: and must go somewhere. They would be less out of place here, perhaps, than amongst Babylonian contracts. Other Babylonian contracts are included in the Catalogue, which as certainly were not found at Nineveh. Many of them are rightly stated to be 'not from Kouyunjik.' These I have, however, now copied, and as time and opportunity serve I shall publish them, either in an Appendix, or separately as 'Babylonian Deeds and Documents from the Kouyunjik Collections.' The other points raised by Dr Peiser's friendly notice will be remarked on elsewhere.

In April, 1899, by the kind courtesy of Dr Oppert, I received an advance copy of his article, *Das Assyrische Landrecht*, which later appeared in the *Zeitschrift für Assyriologie*, Vol. XIII. pp. 243—276. Like everything which that great master, to whom Rawlinson willingly conceded the title 'Father of Assyriology,' has written, it is full of acute suggestion and clear explanation. It deals with a large number of the texts in my Volume I. It states far more clearly than I have ever seen before the results already attained in *Documents Juridiques*: justifying some, modifying others and withdrawing some. It amply proved, what I had already stated, that if Oppert had a clear text before him, the meaning of it would soon be given to the world. As most of my second volume was already written, I had neither the heart nor the time to rewrite it: but I had still the time to place references to this article alongside my work. Where the results are the same, it gives me joy to know that I had reached them independently, and I am not interested to claim any priority of their discovery. It is a great triumph for them that they were first given to the world by Professor Oppert. The case is different with the points on which I differ from Dr Oppert. Doubtless in many cases he is right and I am wrong. I have only room, for which I am grateful, to place his opinion, or at least a reference to it, not in the

place of honour it deserves, but at the end of my own. That is no slight, merely the exigency of space. I could not take to pieces again what was written.

Dr Oppert's article needs no advertisement from me. It will remain a witness to the unabated powers of that gifted mind: and if I shall appear in any way to have paid it small respect, it is only because my mind was made up, and worse still written down, before I knew of the view taken there. In some points I remain unconvinced. I hope my views will not be lashed by Dr Oppert with such scorn as has fallen upon Dr Peiser's guesses in K. B. IV. I cannot of course venture to mediate between them. In one or two places I have taken sides with one or other, perhaps to the discontent of both.

Dr Oppert's contributions in this article to the elucidation of the texts in Volume I. are so great that one can only feel sure that in time, if he is spared, he will clear up all difficulties, except such as are due to defective texts. At the end of his article he has given a most useful summary of the terms used in both Assyrian and Babylonian contracts.

Professor Dr H. Zimmern, of Leipzig, contributed to the *Göttingische gelehrte Anzeigen*, no. 3, 1899 a critical review of Volume I. In this he filled a page with supposed errors detected in my work, of which I have no reason to complain. There are many more not yet pointed out. But he rather misunderstood my purpose, which was to give the text as I read it, not as I conjectured it should be. It is all very well to say that the edition in III. R. was correct and mine incorrect where it differed. The point is that I had collated the text and given it differently, and the proper supposition to make was that the scribe had so written the sign, or it had been so damaged, as to render my reading at least as probable as that elsewhere given, or more usual. However, I am by no means obstinate on such points, and in my comments on the individual texts I shall notice these imputed misreadings separately, and pay all due respect to the suggestions made by the learned Professor. In most cases, I am at one with him as to what ought to be there, the only point of dispute will be what actually was written. On this point I have sometimes been mistaken. All honour must be paid to the care and labour involved in the detection of such points. It must be noted in justice to both Dr Zimmern and myself, that in no. 6, of the same publication, he handsomely withdrew all imputation of carelessness that he might have seemed to imply. He is perhaps

right in thinking that an error in an edition must be the editor's, unless he expressly notes it as '*sic*' in his edition. But that credits me, as editor, with greater knowledge or confidence than I possess. Although I had noted, what I took to be an erratic use of *šá* for *TA*, I thought I had found too many examples of it, to regard it as an error. The writing of *ša* with only two clearly legible horizontals is common enough, and that of *TA* with only two clearly legible verticals is certainly occasional. Hence the errors, as I think they probably are. But I did not feel competent to decide against my original that what looked like *ša* was meant for *TA* and ought to be so edited. Consequently I made an error, which I am really grateful to Professor Zimmern for detecting. I now surrender these cases, and admit that I also ought to have seen that *TA* was intended. In other cases, I am still unconvinced, though in no. 307 I believe *KI-UD* should be *KU-UD* as III. R. had already given. It was only with much deliberation that I had decided to give *KI* in place of *KU*, but I recognise now that what gives a good sense is preferable to what would be without parallel. I am afraid that I was too much influenced by a desire for mere mechanical accuracy of reproduction, without using my judgement as to the sense of what was before me. One may err in the other direction and give a rendering of one's own opinion of what ought to be rather than a faithful reproduction of what is. The first error is the safer for a beginner.

It is most instructive to notice the radical difference between English and Continental reviewers. Here it seems enough to turn over a book to some amateurish scribbler who can shelter his want of knowledge under the screen of anonymity. To such a reply is hardly expected, they would probably be alarmed at the idea of a discussion founded on their criticisms. The foreign reviewer spends real labour, even if of a pedantic style, on his work, and the errors he points out, the objections he raises and the suggestions he makes are worth notice. At least he spares the author the preliminary insult of assuming that it is not worth while to read his book or to know much of its subject in order to review it.

Such a feeble creature will seek to play off one scholar against another, in the hope that some fun will result from the touchiness of the pedant. For example, the Catalogue may be quoted against one on such points as obverse and reverse and the number of lines on a tablet. Now I have not the smallest desire to emphasize the errors of the Catalogue. I can conceive that Dr Bezold felt some con-

tempt for the class of documents with which I deal and it seems clear that he did not adopt any strict rule as to what should be reckoned a line. What I call a trace, which presents no legible or recognisable sign, is often counted as a line, while clearly written signs, forming parts of a line, or even whole lines, are not counted. No one would be more willing to admit the error when pointed out than the esteemed Professor at Heidelberg, but I have no mandate to single out errors and gloat over them. I am not writing a review. But, on the other hand, when there is an error in the Catalogue, nothing demands that I should perpetuate it by repeating it in my edition of the text. It is too absurd to be twitted with the inconsistency of the two views, most of all by one who seemingly has not the skill, or has not taken the pains, to collate my text with the original.

I heartily apologize for my errors, whether they be detected or not, and perhaps I owe a little further explanation of them. A day's excursion from Cambridge to London, and the copying of a few texts at the British Museum, has usually been followed by an interval of some days before I could autograph the texts. When I suspected an error I left a blank space for the correction, after a collation of the text. I now suspect that these corrections were sometimes made with the wrong writing fluid. For, especially in the case of the square brackets, indicating the ends of a line, or the insertion of a restoration, the corrections have not all been printed in the text, although clear enough in the copy. I hope to point out all such errors in the comments on the texts.

In conclusion, I have to express my gratitude again to Dr E. A. W. Budge for the many kind permissions he has granted me, materially facilitating my work. Also to Mr L. W. King and Mr R. C. Thompson for help in reading difficult places. There is no doubt, that nowhere in the world are such facilities and assistance afforded students who mean to work, as at our British Museum.

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ADDITIONAL CUNEIFORM TEXTS

LIST OF ABBREVIATIONS.

A. B. — *Assyriologische Bibliothek, herausgegeben von Friedrich Delitzsch und Paul Haupt.* Leipzig, 1881 ff.

A. B. A. W. — *Abhandlungen der Berliner Akademie der Wissenschaften.*

A. B. K. — Eb. Schrader, *Die assyrisch-babylonischen Keilinschriften.* Reprint from *Z. D. M. G.* 1872, p. 175.

A. B. P. — See *A. B. P. R.*

A. B. P. R. — Br. Meissner, *Beiträge zum Altbabylonischen Privatrecht.* Leipzig, 1893. Vol. XI. *A. B.*

A. B. R. — J. Kohler und F. E. Peiser, *Aus dem Babylonischen Rechtsleben.* Leipzig, 1890 ff.

A. B. R. — J. Kohler, *Die Assyrische und Babylonische Rechtsurkunde.* In *Zeitschrift für vergleichende Rechtswissenschaft:* Bd. III. p. 201 ff. Stuttgart, 1882.

A. D. D. — C. H. W. Johns, *Assyrian Deeds and Documents recording the Transfer of Property.* Cambridge, 1898.

A. F. — H. Winckler, *Altorientalische Forschungen.* Leipzig, 1893 ff.

Alt. Or. Forsch. — See *A. F.*

Al^1, *Al*^{2}, *Al*^{3}, *Al*^{4}. — Friedrich Delitzsch, *Assyrische Lesestücke.* First Edition, Leipzig, 1876. Second Edition, Leipzig, 1878. Third Edition, Leipzig, 1885. Fourth Edition, Leipzig, 1900, as *A. B.* Vol. XVI.

A. M. G. — C. F. Lehmann, *Über altbabylonisches Maass und Gewicht und deren Wanderung.* In *Zeitschrift für Ethnologie*, 1889, pp. 245—327. Berlin.

Ass. Dic. — Edw. Norris, *Assyrian Dictionary.* Vol. I—III. London, 1868, 1870, 1872.

Ašurb. — S. A. Smith, *Die Keilinschrifttexte Asurbanipals.* Leipzig, 1887—9.

Assurb. — G. Smith, *History of Assurbanipal.* London, 1871.

Athen. — *The Athenaeum, Journal of English and Foreign Literature, Science, the Fine Arts, Music and the Drama.* London, 1828 ff.

Bab. Rechtsl. — See *A. B. R.*

B. A. S. — *Beiträge zur Assyriologie und vergleichenden semitischen Sprachwissenschaft: herausgegeben von Friedrich Delitzsch und Paul Haupt.* Leipzig, 1890 ff.

B. D. — *A Dictionary of the Bible.* Ed. by James Hastings. Edinburgh, 1898 ff.

B. E. A. C. — See *B. E. P.*

B. E. P.	*The Babylonian Expedition of the University of Pennsylvania. Series A. Cuneiform Texts.* Edited by H. V. Hilprecht. Vol. IX. 1898.
B. K. B. R.	H. Zimmern, *Beiträge zur Kenntniss der Babylonischen Religion. Surpu*, 1896; *Ritualtafeln*, 1899. Vol. XII. *A. B.*
B. M. G. W.	See *A. M. G.*
Br.	R. E. Brünnow, *A Classified List of all simple and compound cuneiform Ideographs.* Leyden, 1887—9.
B. V.	F. E. Peiser, *Babylonische Verträge.* Berlin, 1890.
Cata.	C. Bezold, *Catalogue of the Cuneiform Tablets in the Kouyunjik Collection of the British Museum.* London, 1889—99.
C. I. S.	*Corpus Inscriptionum Semiticarum.* Paris, 1881 ff.
C. R.	*Comptes rendus de l'Académie des Inscriptions et Belles Lettres.* Paris, 1857 ff.
C. T.	*Cuneiform Texts from Babylonian Tablets, &c., in the British Museum.* London, 1896 ff.
D. A. G.	Friedrich Delitzsch, *Assyrische Grammatik.* Translated by A. R. S. Kennedy. Berlin, 1889.
D. L. A.	R. Lepsius, *Die Längenmaasse der Alten.* Berlin, 1884.
Doc. Jur.	J. Oppert (and J. Menant), *Documents Juridiques de l'Assyrie et de la Chaldée.* Paris, 1877.
Ep. Can.	G. Smith, *The Assyrian Eponym Canon.* London, 1876.
Forsch.	See *A. F.*
G. G. A.	*Göttingische gelehrte Anzeigen.* Göttingen, [1753] 1824 ff.
H. A. B. L.	R. F. Harper, *Assyrian and Babylonian Letters.* Chicago, 1892 ff.
H. W. B.	Friedrich Delitzsch, *Assyriches Handwörterbuch.* Leipzig, 1894—6.
I. R., II. R., III. R., IV. R^{1}*., IV. R*^{2}*., V. R.*	H. C. Rawlinson, *The Cuneiform Inscriptions of Western Asia.* London, 1861, 1866, 1870, 1891, 1880—4.
J. A.	*Journal Asiatique.* Paris, Series VI. 1863—72, Series VII. 1873—82.
J. R. A. S.	*Journal of the Royal Asiatic Society.* London, 1834—63; New Series, 1865 ff.
K. A.	F. E. Peiser, *Keilinschriftliche Actenstücke.* Berlin, 1889.
K. A. T^{2}*.*	Eb. Schrader, *Die Keilinschriften und das Alte Testament.* Giessen, 1883.
K. B.	Eb. Schrader, *Keilinschriftliche Bibliothek.* Berlin, 1889 ff.
Khors.	*The Khorsabad Inscription of Sargon.* See Winckler's *Sargon*, Pl. 30—36.
Kos.	P. Jensen, *Kosmologie der Babylonier.* Strassburg, 1890.
Le Droit.	J. Oppert, *Le Droit de Retrait Lignager à Ninive.* C. R., 1898, pp. 566—592.
Lit.	C. Bezold, *Kurzgefasster Überblick über die babylonisch-assyrische Literatur.* Leipzig, 1886.

Muss-Arnolt.	W. Muss-Arnolt, *A Concise Dictionary of the Assyrian Language.* Berlin, 1894 ff.
O. C. W. S.	W. Ridgeway, *Origin of Metallic Currency and Weight Standards.* Cambridge, 1892.
O. L. Z.	*Orientalistische Litteratur-Zeitung. Herausgegeben von F. E. Peiser.* Berlin, 1898 ff.
Peek-Pinches.	*Inscribed Babylonian Tablets in the possession of Sir H. Peek, Bart.* London, 1881.
Pognon Bav.	H. Pognon, *L'inscription de Bavian.* Paris, 1879.
P. S. B. A.	*Proceedings of the Society of Biblical Archaeology.* London, 1872 ff.
R. A.	*Revue d Assyriologie.* Edited by J. Oppert and E. Ledrain. Paris, 1884 ff.
Rec. de Trav.	See *R. T.*
Rec. Past.	*Records of the Past.* Edited by S. Birch. London, 1873—8. New Series. Edited by A. H. Sayce. London, 1888 ff.
Rev. Ass.	See *R. A.*
R. T.	*Recueil de Travaux.* Edited by G. Maspero. Paris, 1870 ff.
Samml.	H. Winckler, *Sammlung von Keilschrifttexten.* Leipzig, 1893—4.
S. A. V.	J. N. Strassmaier, *Alphabetisches Verzeichniss. A. B.* Vol. IV. Leipzig, 1882—6.
S. B. B. A.	*Sitzungsberichte der Königlich-Preussischen Akademie der Wissenschaften zu Berlin.* Berlin, 1882 ff.
S. F. S.	Paul Haupt, *Die Sumerischen Familiengesetze.* Leipzig, 1879.
Sign List.	Th. G. Pinches, *Texts in the Babylonian Wedge-Writing.* London, 1882.
Spr. Nbd.	K. L. Tallqvist, *Die Sprache der Contracte Nabû-nâ'ids.* Helsingfors, 1890.
Str. Camb.	J. N. Strassmaier, *Babylonische Texte. Inschriften von Cambyses.* Leipzig, 1890.
Str. Cyr.	J. N. Strassmaier, *Babylonische Texte. Inschriften von Cyrus.* Leipzig, 1890.
Str. Dar.	J. N. Strassmaier, *Babylonische Texte. Inschriften von Darius.* Leipzig, 1892—7.
Str. Nbd.	J. N. Strassmaier, *Babylonische Texte. Inschriften von Nabonidus.* Leipzig, 1887.
Str. Nbkd.	J. N. Strassmaier, *Babylonische Texte. Inschriften von Nabuchodonosor.* Leipzig, 1889.
Suppt.	Br. Meissner, *Supplement zu den Assyrischen Wörterbüchern.* Leiden, 1898.
T. Pl.	W. Lotz, *Die Inschriften Tiglathpilesers I.* Leipzig, 1880.
V. B. G. A.	*Verhandlungen der Berliner Gesellschaft für Anthropologie, Ethnologie und Urgeschichte.* Berlin, 1869 ff.
Z. A.	C. Bezold, *Zeitschrift für Assyriologie.* Leipzig, 1886 ff.
Z. Ae. S.	*Zeitschrift für ägyptische Sprache.* Leipzig, 1863 ff.
Z. D. M. G.	*Zeitschrift der Deutschen Morgenlandischen Gesellschaft.* Leipzig, 1845 ff.

CHAPTER I.

GENERAL INTRODUCTION.

1. The modern scientific method of dealing with history deduces its conclusions from facts attested by monuments. In the search for such facts archaeology has of late years become a new and powerful agency. Especially in the history of the East has a revolution been accomplished by the exploration of the buried cities of Mesopotamia. Already the great historical inscriptions of Assyria and Babylonia have put a new meaning into the centuries before the Christian era. How the view has altered for the student of the Hebrew Scriptures few can yet realise. The influence of Oriental civilisations upon the institutions of the West we have only begun to surmise.

2. Among the sources of historical evidence we must assign an important place to legal documents. In European history much stress is laid on charters, census records, private letters, journals, and the like. Archives and private collections are increasingly ransacked for these unbiassed and unimpeachable witnesses to fact. There can be few archives so replete with contemporary records of all kinds as the so-called Library of Aššurbânipal at Nineveh. Everything concerning the business transactions of the royal household seems to have found its place there, alongside state documents and historical records. Of late years Assyriologists have been enabled, through the publication of the great British Museum Catalogue of the Kouyunjik collections, to bring together the documents bearing on any particular subject. Inestimable is the boon that such a work confers on all who wish to get at original sources for the history of the Sargonid dynasty in Assyria. Professor Dr C. Bezold has done what few men could, and fewer would venture to attempt, by giving us an approximate idea of what each of

the twenty thousand and more tablets and fragments is really concerned with. This is truly a magnificent achievement for one man to have accomplished, as his self-denying contribution to the general good. It now remains to take them class by class, combine, coordinate, join, restore, and publish them.

3. Among the many classes of documents, thus first rendered available for connected study, the so-called contracts, legal decisions and charters, or proclamations, were at once distinctly marked out and readily available. These records of private life, intimately associated as they are with the royal household for the greater part of the 7th century B.C., the period of Assyria's widest empire, drawn up with scrupulous accuracy, dated, sealed and witnessed, are an almost priceless legacy to us from the conquerors of 'the four quarters of the world.' That we can now know with such exactitude what men said and did so long ago seems a startling justification of the proud boast of those who wrote with an expressed view to all future time. One can hardly feel it other than a solemn duty to the past to listen to the voice that speaks so clearly across the silence of ages. Who can without a sympathetic thrill hear the heart beat from beneath the arid sand, as he reads the unfaltering characters that tell the story of a brother man? We learn his wants, his hopes and fears, we recognise the unbending will, the careful estimate of possibilities, the shrewd adaptation to circumstances, and at every turn we find an echo of ourselves. This intense reality of human interest clings most closely to the contracts. Far from repelling by their dry details, they make a direct appeal to modern minds by their clear brisk business smartness and their apt expression of a direct relation to actualities. The real Assyrian stands before us a living man. We may fail to follow his religious aspirations, we may discount his narratives of conquest, we may misunderstand his views of natural or moral philosophy, but his grip on the shekel is as real and direct as our own. For plain straightforward expression of his intentions there is nothing to compare with the Assyrian's deed of sale, unless it be a Babylonian version of the same transaction.

4. In addition to this revelation of the character of a nation that was one of the greatest empire builders of the old world, there are not a few direct contributions to history. A glance through the pages of Schrader's *Keilinschriftliche Bibliothek* will shew how large a part of the history of certain periods depends solely upon documents

of this class. Of many kings we have little more to say than what is to be deduced from a boundary stone or a charter. Fortunately for the reigns of Sargon and his successors we have ample historical inscriptions to give us a general knowledge of the political and external relations of the country. From the contracts we can further learn how these events affected life at home. From some of the historical inscriptions we may deduce the state of affairs in Assyria itself. From the 'contracts' we can often verify or correct our impressions. Histories of Assyria exist in plenty, and I do not propose to reproduce them, nor to recapitulate their information. There are however many *lacunae* in the historical inscriptions. A king's cylinders or prisms rarely reach the last few years of his reign; his successor does not start where he left off, but with his own accession. True, the chronicles and the canon lists supply some connecting links, but they are very scanty. Our documents give many more valuable hints. As they directly concern the royal household, and cover almost every year, we know much of what went on at the headquarters of the empire. When supplemented by the letters, of which such numbers are preserved, we shall doubtless be able to solve many a puzzle. It is not however my purpose to apply the information contained in these documents, so much as to arrange, elucidate, classify, and, so far as I am able, render them readily available for use as materials for history.

We need not wonder that this class of document has had such a fascination for so many scholars. Few Assyriologists have not done something at the 'contracts.' Few have not found themselves repaid for their labour by the interest of their results. There is hardly one but throws some fresh light on some Eastern custom, some social or commercial usage, or reveals some unexpected nationality, some striking personality.

5. The previous publications of the Assyrian contracts are mentioned on p. ix. of the preface to Vol. I. These are but few compared with the contracts published already, belonging to different periods of Babylonian times. They are all enumerated in the Bibliography and are discussed in the comments on the individual texts. Some general reference must be made in passing to the other groups of contracts, etc.

6. The vast collection of texts published by Strassmaier, as Inscriptions of Nabonidus, Nebuchadnezzar, Cyrus, Darius, Cambyses, etc., are an almost inexhaustible mine of information as to the

commercial and social conditions in Babylonia after the fall of the Assyrian Empire. They are chiefly private contracts, and have no further connection with those kings than that they are dated in their reigns. They are arranged chronologically, and by that arrangement certain historical purposes are served. As the various monographs which have been based upon them amply shew, the elucidation of their contents is best served by grouping together the similar texts. They all came practically from the same district, a small area about Babylon. They record transactions between private persons, even though in some cases of exalted rank. Few can be directly associated with the Court or palace; though the wedding to the high-priest of Nabû of a daughter of Neriglissar's and the well-known references to Belshazzar son of Nabonidus are exceptions.

7. The very opposite is true of the documents published in this present work. They also are confined to a small geographical area, but they are mostly of an official nature. They might with good reason have been called Inscriptions of Adadi-Nirari, Tiglath-Pileser, Shalmaneser, Sargon, Sennacherib, Esarhaddon, Ašurbânipal and Ašur-etil-ilâni. In many cases they are grants of property by the king to some privileged official, or the deeds executed by a steward of the king, of the crown prince, the queen, or other member of the royal family. Some are connected with temple property, some may be personal affairs of the officials named in them, and some few may concern mere private citizens. On the other hand, even these may really, closely, and ultimately concern the royal household; only the connection escapes our recognition.

8. As a consequence of this very different *personnel* and purpose our documents do not receive much illustration from the contracts of the later Babylonian times. Phraseology and usages seem quite different. If our documents present a fair specimen of the average Assyrian business transactions of their period, then there was a very marked dissimilarity between the usages in Assyria and Babylonia. We have, it is true, comparatively few Babylonian documents of the same date: but such as we have are closely allied to the later Babylonian documents: they shew small trace of Assyrian influence. It is likely, however, that Court business followed quite another style from the ordinary private business. If so, as our documents are all so similar, we may assume them all to be Court documents. When the private contracts of everyday life in Assyria do come to light, they may turn out to be much more like the contem-

porary Babylonian types, and very unlike those published in this book.

9. In his *Keilinschriftliche Actenstücke aus Babylonischen Städten* and his *Babylonische Verträge*, Dr Peiser gave a large number of texts chiefly of the later Babylonian times. The accuracy of his copies, the careful discussion of them, and the great advances in interpretation which he made, render these books indispensable to the student of the contract literature.

10. Before him, Professor Dr Oppert, in his *Documents Juridiques*, gave a large number of copies of Babylonian texts, besides Assyrian texts. He practically founded the interpretation of the contract. Defective or erroneous as his texts often were, he found out their meaning in most cases, and it is still essential at least to know what he has said. Dr Peiser in *K. B.* IV. also gave a great many more later Babylonian texts, many of them from his own copies. Many of these were, however, transliterated from Strassmaier's great publications. Dr Oppert has also published many articles, taking Strassmaier's texts as his basis and elucidating their contents.

11. Dr Tallqvist published a discussion of several of these contract texts in his *Babylonische Schenkungsbriefe*. He also contributed an invaluable introduction and glossary to the Inscriptions of Nabonidus, Nebuchadnezzar, etc. published by Strassmaier. Lately, Dr Demuth and Dr Ziemer have discussed a large number of Strassmaier's texts, as Dr Zehnpfund had done before them for the group relating to weaving, etc.

It is not easy to separate the publication of texts from the explanations and translations which have usually accompanied them. On the other hand Strassmaier's texts were published without note or comment, but with most interesting prefaces and an index of proper names. The British Museum publications in Cuneiform Inscriptions of Western Asia, by Rawlinson, etc., and the last series of Cuneiform Inscriptions from Babylonian tablets, by Mr T. G. Pinches and Mr L. W. King, are also without note or comment. They together form an enormous body of texts, which will for years to come be a source of information and a subject for study. I cannot pretend to have mastered them all. In looking through them I have often been struck by phrases or passages that seemed to throw light on the Assyrian contracts. I must have missed many more, for, unless I could have carried all my difficulties in my mind at the same time,

it would have been impossible to note all that might be of service. I have not had time to index all these publications. On the whole, they rather shew how separate and special our texts are, than help to understand them. Dr A. B. Moldenke has also published a number of Cuneiform texts of the (New York) Metropolitan Museum of Art. These are chiefly of the later Babylonian kind. He gives some useful translations and comments.

12. We are now able to compare a large number of similar documents from the early Babylonian times. Strassmaier published a collection 'from Warka' in the *Proceedings of the Fifth Oriental Congress*, chiefly of the times of Nûr-Adadi, Rîm-Sin, Ḫammurabi and Samsuiluna. Dr B. Meissner, in his most valuable work, *Beiträge zum Alt-Babylonischen Privatrecht*, a work full of most interesting conclusions and far-reaching enquiries, gave us many more. The publication by the British Museum of a series of 'Cuneiform texts from Babylonian tablets, etc.' (eight parts already out) has added yet more.

It is very remarkable that these early Babylonian 'private contracts' should so frequently illustrate ours. The similarity in words and phrases is most marked. We have long known that Assyrian culture came from Babylonia. It is somewhat surprising to find the earlier forms, once common to both lands, surviving in Assyria so long after Babylonia had devised fresh and widely divergent turns of expression. In this respect it would seem that Assyria, absorbed in military expansion, had stood still in commercial development. The contrast may, however, be due to quite another cause. The preservation of the older forms of expression may have been simply characteristic of the Court officialism. It was doubtless more dignified to retain the ancient formulae, hallowed by long usage, than to indulge in new-fangled modes of expression. If this be the real explanation, it is an additional argument for doubting whether we yet have really before us the everyday commercial documents of Assyria.

13. Among the numerous publications of contract tablets the four Assyrian documents given by Dr Scheil in the *Recueil de Travaux*, Vol. xx. p. 202 ff., are very significant. They will be seen to be quite unlike the class of tablets in this work, and, though clearly contemporary in date, are much more nearly allied to Babylonian types. I have taken the liberty of reproducing them in transliteration, with a few comments, as in nos. 776—779.

Of course there must be thousands of documents like these buried at Kouyunjik. The puzzle is how these were 'found.' Can it be they were on the surface? We understand that exploration proper is forbidden, but this haphazard sort of 'find' is most perilous. Precious and indeed unique documents of history are the sport of ignorant dealers. We owe great gratitude to men like Father Scheil who will rescue something from the wreck.

In the Louvre at Paris there is preserved at least one tablet of a nature akin to those here published. It was referred to by Professor Oppert in his *Documents Juridiques*, and by G. Smith in the *Assyrian Eponym Canon*. Numerous extracts from it were published by Strassmaier in his *Alphabetisches Verzeichniss*, and an account compiled from these quotations will be given as no. 780. It appears not to be from Nineveh, but probably from Khorsabad.

14. Of some interest are the so-called Cappadocian tablets. Many of these are contracts, and they have some striking resemblances to our group. The largest number were published by Golénischeff, who procured them from the neighbourhood of Kaisarieh. They have been exhaustively handled, not only by the owner and editor, Golénischeff, in his first edition, but especially by Professor Dr P. Jensen and Professor Dr Fr. Delitzsch. Others have been published by Mr Pinches, Professor Sayce, and Dr Scheil. Dr Peiser has summarised the chief facts about them in *K. B.* IV. p. viii.

Their relationships to Assyria are very marked. Names compounded with Ašur occur, the writing reminds one of early Assyrian rather than of Babylonian types, the language has affinities with both, but the dating by eponyms rather than by regnal years is very significant. One must admit either that they were written in an Assyrian colony or that the native population had been deeply affected by Assyrian influence. Further, there are strong evidences of a Semitic population, that was possibly not Assyrian but of the Canaanite branch. The whole question of their date, exact locality, and true racial affinity must remain to be settled by future 'finds.' It is noteworthy that we often find in the Assyrian historical inscriptions that rulers of independent states are given Assyrian names. We also know from the inscription of Bêl-Harrân-bêl-uṣur, in the time of Tiglath Pileser III. (see *K. B.* IV. p. 102 ff.), that even after the Assyrian Empire had reached a high pitch of power, Assyrian officials could set out to found cities and call them after

their own names. It seems to me, these scattered hints point to the Assyrian race as being active colonisers and a migratory race long after they had a chief seat in Assyria proper. The policy of the kings to deport the natives of a conquered province and set in their own subjects may have been only a formal expression of a racial tendency. The rapid extension of empire also may merely have been the last step in bringing under the central authority lands already permeated through and through by Assyrian emigrations.

The Cappadocian tablets are as yet too few to do much for the elucidation of Assyrian contracts, but they are very closely related, and undoubtedly of a much earlier date than our group.

Unfortunately we as yet have few Assyrian contracts from any other place than Nineveh, few of earlier date than the 7th century, and few that are certainly of a popular character. We must never lose sight of the fact that our group is highly specialised and strictly local.

15. Of considerable interest are those Babylonian contract tablets, sixty-eight in number, which appear in the Kouyunjik Collections. As stated in the British Museum Catalogue many of these are clearly not from Kouyunjik at all. They are of very various dates, early Babylonian, later Babylonian, etc. As it was needful to copy them in order to be sure of their nature, I hope some future opportunity of publication may present itself. For the present the reader may accept my assurance that they have little or no connection with our Assyrian, or rather Ninevite documents. Some few, however, are concerned with the affairs of the Assyrian royal household at Laḫiru and perhaps elsewhere, and a few seem really to have been brought to Nineveh in Assyrian times from the Babylonian cities. A transliteration of these will appear with a few comments at the end of this work.

16. The value of these and similar documents for our study lies chiefly in their contributions to the vocabulary. They also furnish much light on the customs and social conditions, but are then to be used with caution.

17. Of equally great value are the numerous lists of objects, animals, contributions, and the business or official memoranda. When dated, documents of this sort have generally been published along with the contracts· but they do not seem to me properly included in the present work. Several such lists were actually included in volume I. merely because they had been called contracts in the Catalogue, and I had to shew what they really were.

Others were added because, though not called contracts, they were precisely similar lists. I have now copied all the lists signalised in the Catalogue and hope ere long to find some opportunity of publishing them. They have considerable interest, recording many names of objects not yet in our lexicons, and in many ways illustrate our work. I have quoted freely from them in my notes. They certainly are in no sense contracts.

18. As might be expected, the letters, so admirably published by Dr R. F. Harper in his *Assyrian and Babylonian Letters*, quoted as H. A. B. L., furnish many sidelights on the subjects of my work. I have also ventured to quote from a few letters that I had copied before I was aware of Dr Harper's enterprise.

The names that appear in published texts or in the Catalogue are also freely drawn upon, both in the references in the body of the work and in the Index of Proper Names.

19. It is not always easy to recall the origin of one's views, and if in any place I have repeated what I have read of another man's work, without acknowledging the source of my information, I beg humbly to apologize. On the other hand, some things that I had noted have, since I wrote them down, been pointed out by others. In these cases, I have not always been careful to state that my conclusions were arrived at independently, because on reading others' remarks my own previous work made them seem familiar, and I have perhaps overlooked the fact of their originality. For any such unconscious offences I also apologize.

20. The earlier attempts to translate or explain these documents have my respectful and grateful reverence. Once for all, let me bow in admiration at the genius that unravelled the mysteries of cuneiform script and the Assyrian tongue. Before I began my studies this great work was done. Now the difficulties are chiefly of obscure words and phrases, and certain doubts arising from our ignorance of what was possible in Assyria at the period.

Many have taken in hand to elucidate the Assyrian contracts. First and foremost we must place Professor Dr J. Oppert. His work on the *Documents Juridiques* is the basis of most of that which I can regard as sure. He has continued to contribute to the further elucidation of the legal and commercial customs and documents in numerous articles; and he has lately written two articles, largely based on the new material in volume I. His name consequently appears on almost every page of this book.

A worthy second is Dr F. E. Peiser. Not only in the case of later Babylonian contracts did he make many luminous and brilliant suggestions, but he greatly advanced our knowledge of the Assyrian texts by publishing or re-editing a large number in the fourth volume of Schrader's *Keilinschriftliche Bibliothek*. Further, in conjunction with Professor Dr J. Kohler, he has edited a series of contributions to the understanding of the contract literature under the title *Aus dem Babylonischen Rechtsleben*. Although these scholars do not therein expressly handle Assyrian documents, they throw much light on them.

Mr T. G. Pinches has also made many noteworthy contributions to the study in his edition of Sir H. Peek's *Collection*, and in many scattered articles.

Quite recently Professor Dr H. V. Hilprecht and Dr A. T. Clay have edited a set of later Babylonian contract tablets from Nippur, of the time of Artaxerxes I. These are of value both for vocabulary and the notices of the customs that had survived the Persian invasion.

As before remarked, most Assyriologists have done something to elucidate these texts. Even those who have not published any, as Professor Delitzsch for example, have done much to clear up their meaning. It is needless to say that to all of them, and especially to Delitzsch's *Handwörterbuch*, I am greatly indebted.

21. One of the most valuable and informing pieces of work ever done for the classification of the contracts is chapter C in Dr Bezold's *Kurzgefasster Überblick über die Babylonisch-Assyrische Literatur*. He devoted §§ 83—91 to the contracts, and therein made many most valuable suggestions, and especially rendered good service by his classification. The sections into which he divides the then published contracts are I. Kaufverträge; A, Über den Verkauf von Sclaven; B, Über den Verkauf von Immobilien, (*a*) von Häusern, (*b*) von Feldern, Gärten u.s.f.; C, Sonstige Kaufverträge. II. Darlehensurkunden; A, Mit vertragsmässiger Zinsbestimmung; B, Ohne vertragsmässige Zinsbestimmung; C, Ohne nähere Angaben. III. Urkunden über Eherecht und Ehegüterrecht. IV. Urkunden über letztwillige Verfügungen. Not only did Dr Bezold point out the chief classes into which the contracts might be divided but he made many acute remarks on the purport of several of them. These remarks will be utilised later in the notes. He adds one or two other classes on p. 161, as, for example,

Lieferungs-Verträge, Bescheinigungen, Anleihe von Feldfrüchten. Further, he notes the tablets dealing with Tempeleinkünfte and a sort of Opferstiftungen. Simple Quittungen, Arbeitsleistungen, Vereinbarungen, Processen, etc., are named. Finally, as in all Dr Bezold's work, most careful respect is paid to the previous labours of other men, and their results duly accredited.

From this and the notices in the Catalogue a very exhaustive classification could be drawn up, and from a study of the examples there noted as belonging to the separate classes one might make out some idea of the characteristics of each class. A close study of these points has convinced me that Dr Bezold relied too confidingly on the results given by Dr Oppert, who had worked in many cases from defective texts. Also I am of opinion that in the Catalogue Dr Bezold rather slighted the contracts and too often dismissed them with an uncritical notice. Only so can I account for his singularly inappropriate remarks on some of them. At the same time one would have thought, after the pains he had already taken to classify, as above, the contracts already known, that he would have used that classification in the Catalogue. The chief part of our documents come under the first two heads: only I have reversed their order in my arrangement. I put first all tablets relative to loans or advances, with or without interest, on security, etc., and then the deeds of sale. There are very few tablets relating to heritage or to marriage-settlements. I know of none that can be regarded as testamentary. On the other hand, the leases form a link between the deeds of sale and the charters.

Dr Bezold, here and in the Catalogue, has given a very full series of references to the literature of the subject. One only has to note his references and add the more recent publications in order to be fairly complete.

22. In my preface to the first volume I have touched lightly upon the lack of an accurate nomenclature in dealing with the contracts. I had then in my mind chiefly the earlier efforts of Dr Oppert, the references in some English popular works, and the Museum Catalogue. I had not carefully examined Dr Bezold's classification above, chiefly because I had too hastily assumed that he followed it in the Catalogue. He seems there to have submitted his own good judgment to the inaccurate popular descriptions. It would be hard to see which of his terms above could be accurately rendered 'private contract.' They certainly do suit well the various

classes of documents to which they are more or less accurately ascribed; but the term 'private contract' is founded on an entire misconception of the nature of the document. It would however be acceptable, as a makeshift, were it not so misleading.

23. Many of the terms used in these documents are, of course, distinctly technical. Business terms, trade marks, law terms, agricultural terms, often occur, and are very difficult to interpret. Etymologies are often impossible to obtain and the derivation from similar roots is likely to mislead. The context is far more likely to assist but much must remain guess-work. The occurrence of the same phrase or term many times repeated is of small assistance if the same context always accompanies it. The same term, set in a different context, may have a totally different meaning; the same word even may not have the same sense; two entirely distinct words may have the same spelling and pronunciation. So it has been my plan, when a word of doubtful meaning occurs, simply to transliterate it, unless its translation seemed essential to the understanding of the transaction itself. I have attempted to discuss the meaning of each such expression in some one place: and the reader who wants to know what I have said about it should turn to the Glossary, where he will find a reference to the discussion. I have generally given such discussion in the first place where it seemed essential. Elsewhere I leave the term untranslated. For, though for example, I am convinced that *bêl-ḳatâti* means 'agent,' 'business manager,' I do not always render it so, lest I should import a meaning into the transaction which is irrelevant. If the *bêl-ḳatâti* only does what any other person could do and does not act as 'agent' in the transaction, I leave the term unrendered; but, if 'agency' is a prominent or essential feature of the proceeding, then I render 'agent.' I do not think it necessary each time to repeat all my reasons: if the reader doubts the suitability of my plan, let him look up the reference in the Glossary, under *bêl-ḳatâti*, and he will find where I do discuss the meaning of the term.

24. In my introductions to the separate classes I have endeavoured to set forth the characteristics of the class and to discuss the characteristic formula and its variants: but I do not pretend in such cases to give a list of all the passages where each word occurs. When a word occurs often I say so, and the curious in statistics of occurrence must turn to the Glossary. That I have divined all the nicer shades of meaning is not rationally to be

expected of me, and I can only hope that what I have done will help others to secure what has eluded my grasp.

25. In my preface to the first volume, p. viii, I have already mentioned the difficulty of finding a general term for the legal and commercial documents contained in this collection of texts. In ordinary language 'contract for' means an undertaking to supply something at a stipulated price. A public contract is chiefly understood to imply that tenders have been invited for some public undertaking. Private contracts certainly mean that the documents constitute a binding agreement between persons in their private capacities. When one party is a Court official and the other a merchant, and the purchase is obviously for the royal household, the appropriateness of the term 'private' is open to question.

26. The real misunderstanding that lay at the root of the expression 'private contract' is not particularly easy to exhibit. It would be very easy for those who have used the term to evade any and all its implications by saying that they at least used it in a different way. Still I believe that the early students of these documents did regard them as undertakings to furnish something. For example, when No. 77 is described as 'a contract for copper,' and we find it really recording that a slave was pledged for life for 70 minas of copper, it is difficult to resist the impression that the writer supposed 'copper' to be the real want and the other details mere subsidiaries. He regarded it as the record of an undertaking to supply copper and an engagement so to do. Now this is obviously a false estimate of the transaction, and points to the possibility that only 'copper' was really intelligible to the reader of the tablet. He might just as well have said 'a sale for copper,' or 'a loan of copper' except that he probably feared these were not right and so fell back on the vaguer term 'contract.' He thought it a safe thing to say 'a contract': but as in English we generally say a 'contract for' the thing to be supplied, and as copper was the only comprehensible object, this early student said a 'contract for copper.' He might just as well have said 'a contract for a slave.' For while the word contract does apply to these documents in that the parties do contract to abide by their bargain, they are not contracts in the sense which the word carries to the modern ear. Further, the word contract was actually used in this wrong sense by those early students. If I buy a house of Mr So and So for £2000 and we each take a copy of the deed of sale, that document will certainly

mention me and Mr So and So, and we shall be contracting parties, and it may be quite right in one sense to call that transaction a 'private contract' between us. The deed will also mention the money, but it would be absurd to call it 'a contract for gold.' Now I do not blame anyone for misunderstanding the drift of a cuneiform tablet, it is difficult to avoid doing so, but I think it particularly unfortunate that such a term as private contract was used to cover all commercial and business documents. If I give a list of things I want to my agent and he starts off to procure them, why is the paper he carries with him 'a contract' at all? If he does not get the things, he has not contracted to do so. If he brings them all back and hands them over, the list does not turn into 'a contract.' If I, as steward, serve out certain stores or utensils to the servants and take an inventory of what is served out with their acknowledgment of its receipt, it is a contract only in a vague way to return the goods. It is only in this vague sense that many of the documents in Strassmaier's *Inscriptions of Nabonidus* could be called 'contracts.' Dr Bezold in his Catalogue saw this point clearly enough, and as a rule he calls such inventories by the appropriate name of 'lists of objects.' Other business memoranda he calls 'memoranda,' quite correctly. When an object of any kind was dedicated to the gods as a votive offering, a note appears to have accompanied it, with the name and titles of the donor and some indication of its purpose. It is, however, surely rather odd to call such notes 'memoranda' about the relatives of the donor.

27. Dr Bezold is not alone in regarding the contents of a tablet as of less value for its classification than its shape, etc., but one at least of my esteemed critics does the same. Dr Peiser, in his review of my book, *O. L. Z.* 99, p. 15, rightly takes exception to the tablets K 1468, 1483, 1566, 7382 and 7394 being included in my collection: he rightly ascribes their inclusion to '*irre führende Notiz*' in the Catalogue: but I dared not omit them. For reviewers do not all know what a document is unless they have seen it, and they would have felt safe in condemning me for the omission and in assuming that the Catalogue was right. On the other hand, Dr Peiser thinks I ought to have included K 123, 1014, 1145, 1232, 1254, 1255, 1265, 1293, 1387, 1404, etc. These are not described in the Catalogue as 'Contracts.' How was I to know they were 'Contracts'? I give them now in this volume to justify myself and because, after such a hint, I was bound to copy them, and my readers ought to share

the benefit. But they are not contracts after all. As will be seen, they are something quite different in style. I am aware that Dr Peiser did not apply this term to them. He seems however to cling to the notion that all such 'lists,' 'memoranda,' etc. are properly to be included in this work.

28. But this great master of the contract literature was right, at least in his suggestion that the Catalogue did not name all the contracts. The *Athenaeum* reviewer also was clearly aware of this, for he makes the remark, "had he (the author of *Assyrian Deeds and Documents*) examined the collection more thoroughly his number of printed copies might, we think, have been increased considerably." If one takes up a Catalogue of a certain class of objects in a Museum, one does not expect to be told that on examining the contents of the Museum, there will be found many more objects of the same sort. Especially is this the case, when every such object must be entered in that Catalogue under some head or other. Did the reviewer mean to charge the Catalogue with incompleteness and inaccuracy, or merely desire to disparage my execution of my task by using his knowledge of that incompleteness and inaccuracy?

In any case I am glad to know that it is now recognised that, in order to make a complete edition of any class of tablets, it is necessary to look over many other classes as well. That is a complete apology for my omitting those tablets which hereafter may be recognised as omitted by me. That I have added a number of such fragments in this volume I count as my good fortune. I only hope that others will be as successful.

29. Returning to the names given to these tablets, I must point out that they still lack a single term which accurately describes them all. 'Legal documents' they are certainly, but the term is too wide. There are other legal documents doubtless. Some of these certainly are 'deeds of sale,' but not all. No term I have yet seen exactly describes them all. The term 'private contracts' has become familiar by use, and provided we make all due reservations and do not argue from the term itself, we may at any rate continue to use the word 'contract.' It thus merely denotes 'a binding agreement.'

30. This brings me back to a point that is overlooked in some translations. As far as the context goes, an English legal term may be a fair equivalent for the Assyrian legal term. But both have their own implications, and these may not run on parallel lines. I

may be convinced that 'mortgage' is a fine rendering of a word used to describe a certain transaction, and it may, as far as that transaction goes, be an excellent and accurate translation: but the Assyrian word may also denote a transaction where the word 'mortgage' would imply more. Hence I either leave the Assyrian unrendered or put 'mortgage' in quotation marks.

31. Any attempt at an improved nomenclature for the various classes and a scientific classification must be founded upon at least an approximate understanding of their contents. The external characteristics are not conclusive.

32. The structure and material of the tablets demand a few remarks. Without exception they are composed of clay; burnt in the ashes of a wood fire, possibly in some cases in an oven, or else merely sun-dried. While the larger, purely literary or historical, works were written on slabs of carefully selected clay, pierced with holes at proper intervals to allow the tablet to suffer heating without warping, or also to allow the insertion of small pegs to prevent its surface from being rubbed when turned over; these tablets were treated with much less ceremony. They bear marks of having been held in the hand, while being inscribed, and are often much rubbed, even when well baked.

33. Usually, and in the best specimens, a fairly homogeneous piece of tough clay was taken, cut into a flat tile-shaped block, of an average size of two inches by three and a half long, and one half inch thick. The edges were smoothed and carefully trimmed. Such tablets I call tile-shaped. Another very common shape is convex on the two principal faces. Such were clearly made by rolling the clay into a cylinder and then flattening it down by pressure. Such I call cake-shaped. This shape is more common among the letters than among the contracts. The section of such a tablet perpendicular to its principal faces is not a rectangle but an elongated oval. In some cases these cakes had their ends and edges cut flat, more often they bulge out slightly. The shape of the principal faces is then often not rectangular but bounded by curved lines with their convexity turned outwards. Mere memoranda were often recorded on a little flattened lump of clay, in shape like a flat fig. The shape taken by many, especially those used to record advances, is best described by comparing them to a cushion or pillow. They are oblong in shape but nowhere rectangular, and are sharp at the corners as a cushion is. These are usually much smaller, about an inch by an inch and a

half. When the lump of clay was amorphous and homogeneous throughout and was carefully dried and well baked, it not only resists damage, but if broken, the fracture is clean and sharp, and the fragments when joined fit accurately and closely together.

34. A method was sometimes, however, followed which, while it shewed care, has led to bad results. The clay was evidently spread or rolled out into a thin sheet, about a sixteenth of an inch in thickness. This was doubtless done to allow of pebbles or grit being picked out. The sheet was then folded or rolled up, until it assumed a cylindrical or cushion shape, but was pressed flat. As a consequence the successive layers did not become continuous, and if baked, the heat, probably by expanding the air between them, kept them apart. As long as the outer layer remained intact, the tablets shewed no marked difference from others. When that outer layer was broken, it came away in flakes and the fracture presented a laminated structure, which soon crumbled. Such tablets one can never hope to restore. The fragments, as they fell off, must have broken up almost at once.

35. In all cases, where the tablet has not been baked, the clay is still soft; though it is tough, if originally well selected. When excavated, such tablets were as soft as putty, and many of them bear the marks of the digger's tool or perhaps of some sharp stick used to separate them from the mass of earth. In this way whole lumps have been scooped out of some of them. Others have been crumpled up in a manner that distorts the writing beyond recognition. It is, however, really wonderful that any such unbaked clay tablets should have retained their shape and writing at all after lying buried in earth for so many centuries. They do not seem to have suffered in any case from the tunnelling of worms, being probably buried below the depth at which those creatures work. It is curious to note that several of them have undoubtedly been gnawed by some small rodent animal, the twin marks of its teeth being unmistakable. Whether originally baked or not, many of the tablets have evidently passed through the fire at a later stage, for they are burnt almost to a cinder. So great was the heat that the surface is often completely vitrified. In such a case of course the characters 'ran' in such a way as to defy decipherment. Such are some of the injuries that have befallen tablets, the material of which was carefully selected and well put together.

36. In some cases, the material used, from carelessness or

necessity, was mere earth, filled with grit or even small pebbles. When the stylus or graving tool of the scribe came upon one of these faults, it either left no mark at all or slipped aside into a confused blur. Further, such tablets, even if properly baked, disintegrated rapidly, and if exposed to the weather must soon have become illegible. In some cases one can barely count the lines of writing.

37. Other tablets, during their entombment, became coated with silica or earthy salts. These have, however, generally been successfully treated by the system of cleaning adopted in the Museum. Whenever the body of the tablet was hard, this cleaning has rendered the writing as clear as it was when first written. One cannot too highly praise the skill and care with which this process is carried out. It has shewn that what seemed hopeless defacement was a real preservative and distinct gain. At the same time, it seems possible that some characters, which an early copyist took to be on the tablets, were either never really there or are no longer preserved. It is difficult now to estimate exactly the part which imagination played in some of the early editions.

38. Any attentive reader of the Catalogue must be struck with the number of 'complete' tablets there recorded. The term is a little deceptive. It by no means follows that a complete tablet will give a complete text. The tablet is said to be complete, when it has not lost any considerable part of its material. A large number of the complete tablets are harder to read than most fragments. Especially is this the case with the inner tablets of 'case' pairs. As must be well known, a legal document, or even a letter, was often enclosed in an envelope of clay which bore a duplicate text, a docket or the address. There are many such inner tablets amongst our documents. In their case the text was first inscribed on a small pillow or cushion-shaped tablet, and over this was wrapped a thin sheet of clay as an envelope. No means were taken to prevent its adhering to the inner tablet. If the kernel had not been baked or was not quite hard, the action of the stylus, or the grasp of the fingers, would cause the envelope to adhere or be pressed into the characters of the kernel. Very few of these envelopes are preserved, fewer still are complete, but generally they have served their purpose in keeping the kernel entire. It is clear, however, that this sort of completeness does not necessitate or generally secure legibility, even though the document was originally written in 'clear Assyrian script.' Further the conciseness of the diction used on these inner tablets renders them

harder to understand, and often when the envelope no longer is at hand to supplement or duplicate them they are very difficult indeed to read. It is a great help in reading a blurred text to know what it is about. In the absence of such indication, the 'completeness' of its illegibility is small comfort.

39. In the Catalogue and elsewhere a term has been applied to certain tablets which requires explanation. They are said to be 'heart-shaped.' While this applies fairly well to some of them it is not a good description as a rule. Many of them are very unlike any 'heart.' They were formed, as lumps of clay, on a string or thong. Sometimes the string hung in a loop, with this lump at the lower part of the loop, the string then passed out at the two upper corners or shoulders of the lump. The form then is a cone, flattened by lateral pressure till it assumes a shape something resembling a heart. If however the lump hung on the end of the string, its shape is very much that usually taken by a plummet. It is in some cases triangular in principal section, and sometimes shield-shaped. Its horizontal section is usually an elongated oval. The figure was evidently determined simply by its position on the cord. Whether such labels would be called private contracts in ordinary life I very much doubt. In a quite similar class of tablet a more or less circular cake of clay was pressed on a sack or the strip of canvas, which fastened it, and bore a seal impression, much as a post-office bag is sealed now, the clay taking the place of the wax. The clay had this advantage over wax, that it was the writing material of the time, and when the seal had been affixed to these lumps of clay, it was obviously convenient to add a note of the purpose or destination of the contents and the date. The practice grew, and these labels became evidence of what had been received. The inscription became more detailed and finally set out also the names of the receivers and something of the conditions under which the goods were furnished. As evidence in a court of law they must have been admissible then, just as now such trade receipts would be. They were legal documents in that sense. Nevertheless it sounds strange to modern ears to hear labels and tags spoken of as 'private contracts.'

40. It is only by recognising the general character of the transaction recorded on each tablet, and grouping the tablets accordingly, that further light as to their meaning can be expected. Then when the formula has become perfectly familiar and its possible variants are taken into account, one can guess within a little what

ought to have been in the illegible portions of the text. The traces left and the space available, when this can be estimated, may render the guess a moral certainty, but at the best such a reading is on a far different footing from that of legible texts. I have indicated the character of such a reading by putting a row of dots over it in the text. Not so sure on the whole, but often fairly certain, are my restorations, separated from the text by square brackets. These have no traces on the tablet to confirm them, but the space available has always been taken into account. This is a fairly sure quantity, for in these legal documents, as a rule, the scribe not only wrote the same number of lines to the inch, but approximately the same number of characters to a line, regard being had to the different space taken by different characters. I also use a square bracket at the beginning or end of the legible part of a line to indicate that there was more either to the left or right of what I give. In a number of texts this is not at all decisive; for either the unfamiliarity of the diction, or the uncertainty as to how the words were spaced, may render a decision impossible. Especially is this the case towards the end of the volume. In texts like the proclamations the scribe sometimes spaces out his words to twice or three times their normal length, he even leaves room for three or four words blank, and in other ways renders it quite uncertain whether a given space ever had writing on it or not. Where a formula is familiar, one may feel sure that certain words were originally there. When nothing shews it, a square bracket would convey the impression that I supposed words lost to the left or right, when I do nothing of the kind. On the other hand the value of my restorations has been proved again and again by their leading to the fragment which was found to join and complete the text. The added fragment only differed from the restoration I had made by the substitution of homophonous variants; as *u* for *ú*, *ša* for *šá*, *ti* for *tí*, etc. The reader has not much chance of testing this for the texts published in the first volume, but he will have some idea of the accuracy of my copies, and of what I mean, when he compares the texts of nos. 575 and 579 with the text no. 490 *a*, in the Appendix. It will be seen that each name in no. 579 is completed by no. 575: the fragments of course join. The restorations made in no. 575 or 579 actually occur on the other piece, except where I had assumed one form instead of another common variant. That I did not recognise these fragments as parts of the same tablet, in spite of each containing what the other lacked,

was due to the fact that they chiefly consisted of names. So many names exist, for example, ending in *a*, as the first name in no. 575 does, that it was not obvious that the first name in 579 completed it. So again in no. 575, two consecutive names end in *šarru*; it was hardly to be expected, as 579 now shews to be the case, that both names were the same all through. When however I restored Ardi-Nanâ in no. 579 by adding *na-a* in the square bracket, it was very safe; but it is pleasant to find exactly *na-a* on no. 575. The fact that I passed over a join, so obvious when once seen, leads me to hope that others may succeed in finding more that I have missed.

41. The shape of the tablet is some guide as to its contents. Thus the heart-shaped or flattened conicular tablets, by their shape and obvious traces of the mode of attachment are readily recognised as corn tablets or something similar. So an inner tablet is usually recognisable by its shape and size and its look of having had an envelope. These generally, though not always, record advances of money. So a tablet may often be recognised as a contract or a letter by its shape: that is to say, before reading it one may conjecture its nature and nearly always be right. Yet no hard and fast rule can be laid down as to the connection between shape and contents of a tablet. For example, no. 702 is certainly heart-shaped, but is not concerned with corn or any loan, and no. 148 is pillow-shaped but not a loan of money.

It would hardly do for the purposes of a Catalogue to regard only the shape of a tablet, and, as will be seen, in many cases, such outward indications were entirely fallacious. An acquaintance with the diction of the contracts will alone settle the real nature of a seeming contract. It must be remembered, however, that all these documents do belong to the minor sources of history, and Dr Bezold was scarcely wrong in classifying some of them as 'historical.' Indeed in the case of the better sort, the style of writing and much of the phraseology is exactly like those of the tablets usually called 'historical.' No one would believe they were really contracts, unless he was well acquainted with the legal terms and phrases characteristic of this class of documents. Since writing the preface to the first volume I have examined most of the historical fragments named in the Catalogue, and as a result of this examination a few more texts have been added to this volume.

42. Another indication of the nature of the transaction recorded in the document is furnished by the Aramaic dockets which often

occur. After the Assyrian text was finished, and while the clay was still soft, a few words in Aramaic were scratched in some vacant place. They rarely do more than note a name or 'the sale of so and so,' or 'money for so and so.' Whether they were meant for the purpose of readily recognising and finding the tablet I doubt very much. I do not see what could possibly have been the arrangement of the tablets by which these dockets were more readily seen than the face of the tablet itself. These dockets are far less legible than the text. It is more likely that they were a compendious note of the transaction made for the benefit of someone who would consult them, and that the reason for the employment of Aramaic was that, like the pencil marks made on a legal document now-a-days, they were not an integral part of the document, as an Assyrian sentence would have been. The use of Aramaic may also have been due to a desire to save space; for a word written in Aramaic is much shorter than in Assyrian. They are not confined to any one class of document. I should certainly have published them in my first volume but that I understood Dr T. H. Stevenson had already prepared a monograph upon them, and I expected it to appear almost simultaneously. I do not know whether this volume will see the light before Dr Stevenson's book is out: but for the sake of completeness I shall add my copies at the end of the Appendix. Should Dr Stevenson's book appear before this, I propose to adopt any or all of his readings which I think better than my own with the note S. at the end of them. If his reading be identical with mine, I shall give mine without note or comment. Of course, wherever necessary, I have used the information derived from these dockets in my notes. They do occasionally give useful information. Although written in Aramaic letters, it would be idle to pretend they are always in Aramaic. The words are often merely transcriptions of Assyrian words, and even when the word in question does not appear in the cuneiform text itself, it may represent a colloquial Assyrian word. It would be hazardous to add a word to the Aramaic vocabulary, solely because it is found in them. Unless it occurs elsewhere in a connected Aramaic text, it should be marked doubtful in an Aramaic lexicon. They are of the very greatest value as a verification of our modern transliteration of the cuneiform script. Whenever they throw light upon Assyrian words, I quote them in notes or glossary. The Aramaic transliterations of names are also added in the index of names.

They give the name of the seller, or the buyer, or the slave

sold, etc. A sale of a woman as wife for a slave is recorded in no. 711, and that slave's name occurs as the last of the witnesses. Owing to the defective nature of the cuneiform text this fact was not recognised in former editions, but the Aramaic docket says plainly 'wife for Ardi-Nabû.'

Abbreviations are used as, for example, Sg. for Sigaba, Arda(š) for Ardi-Ištar in no. 229, etc.

Sometimes they are practically duplicates of the Assyrian text; often they add little items of information.

43. The seals impressed on the tablets deserve a separate study. They are often of the highest interest mythologically, often well-preserved and of artistic merit. In most cases, however, the impressions are very rough, and not easily recognised. A photograph would not do them justice, for that would reproduce much that is not wanted. An expert study should be made and a skilled drawing given, with full recognition of what is there. My own copies are made without any such knowledge; what I have drawn is probably due as much to my own imagination as to the original. Still, if space avails, I shall append a few of the best in the hope they will help others to do better. A study of actually existing seals would perhaps be of service, as many of the subjects are clearly treated conventionally and should have parallels.

It is possible to recognise the same seal on different tablets: for example, nos. 188, 205 and 618 all bear the Dagan seal, no. 1 in Appendix. I have, however, failed to assign its ownership definitely. It certainly was not the scribe's, for the same scribe appears on tablets with different seals. It does belong to the parties said to have sealed the tablet, unless several persons used the same seal. It is not the royal seal, mentioned on page 80 of the Catalogue as having been used by several successive monarchs. It is explicitly stated on the tablets themselves whose seal was affixed, and the statements so made will receive attention later. In the early Babylonian times the witnesses impressed their seals, and it seems not unlikely that the scribe then wrote the witness's name beside the seal he had put. See examples in Peek-Pinches *passim*.

On p. 140 of their *Documents Juridiques* MM. Oppert and Menant say: *il est important de remarquer le rôle des parties qui apposent les cachets, car ce ne sont pas toutes les parties contractantes; en Assyrie c'est le dominus negotii, le vendeur, le bailleur, le prêteur.* This has been singularly well borne out by the large numbers of

fresh tablets published since these words were written. The only question that can arise is whether, if we had a collection of really private contracts before us, we should not find there some in which a seller, for example, had received a deed sealed by the buyer.

I imagine that, while it is expressly said that such and such a man has set his seal, we are not bound to suppose that the seal used was actually his own property. To insist upon that would involve us in many great difficulties. It is likely enough that the royal seal was never used save by royal authority, and doubtless many men had their own seal and never used another. On the other hand, a seal may have been taken by the notary with the draft of the document, or borrowed from someone present and used for the occasion. It probably was sufficient that some seal was set by the seller, after the legal declaration that he had set his seal, and the personal ownership of the seal used on the occasion seems to have been beside the question. It appears probable that the verbal declaration 'he has set his seal' was enough, without any actual impression.

44. The script of the tablets varies greatly and many peculiarities in the form of the characters could be noted. I have collected a few of the more noteworthy in the Appendix, for the sake of those who care to see them. They are rarely reproduced in the text. They are certainly, in my opinion, only fashions of writing, such as prevail, even in our own day, in our own country. In tablets hailing from Laḫiru, a town nearer Babylon than Nineveh, a tendency to use Babylonian forms appears, and it may well be that it was usually the case that, the nearer Babylon, the more its script was adopted. On the other hand, a *quasi*-Babylonian form crops up now and again in a text otherwise purely Assyrian. The chief characteristic of the Assyrian style of writing is its squareness. Horizontals are at right angles to their verticals and the wedge is deep in the head, with a short tail. In Babylonian the tail is longer and the head not so square set. The general effect of the difference is that noted between a fine Italian hand and the bolder modern English commercial style. On the other hand, sometimes an Assyrian tablet has much the general appearance of a Babylonian one. The forms of the characters differ also in the number and arrangement of wedges, but the effect is similar. Still, on the whole, the Assyrian is a 'square' hand. It may be this quality of

squareness, rather than any true tradition of origin, which won for the square Hebrew character the title of Assyrian.

45. There are many cases of recognisable error. A list of some of the more obvious errors is given in the Appendix. A wedge omitted, numbers wrongly added, one character written on another imperfectly erased, curious and apparently unjustifiable spellings, occur often. A scribe seems to have taken a sort of pride in using odd methods of writing at times. Some of the errors I have silently and perhaps, in some cases, unconsciously corrected. As a rule, however, I preferred to give what I saw. Especially was I careful to reproduce unusual forms of spelling. These may be as truly errors as the others, but they are often of value as shewing exactly what was meant, when a more accurate writing might have left room for doubt. I did not venture to add a '*sic*' to them, as some of my critics seem to desire, because I did not feel sure that the scribe was wrong or even eccentric. He may have had better reasons for his practice than we know of at present.

46. When a scribe had to write forty lines on a little lump of clay, less than two inches square, he was forced to be economical of his space. The scribe usually wrote on the obverse, parallel to the shorter axis of the tablet. When he reached the bottom he turned over the tablet about its shorter axis, not as we turn the leaf of the book about an axis perpendicular to the direction of the writing. He often continued his text on the lower edge, then on to the upper side of the reverse. In this way the top of the reverse lies behind the bottom of the obverse, and, when the lower portion of the obverse is broken off, the upper part of the reverse generally went with it and *vice versâ*. When he reached the lower side of the reverse, the scribe continued on the lower edge of the reverse which, of course, is the upper edge of the obverse. Occasionally he began his text on this upper edge instead of at the top of the obverse. Not content with thus filling all the lines possible, parallel to the shorter side, he often wrote on the left-hand edge, sometimes on the right-hand edge also. Looking at the tablet, with the obverse upwards, this left-hand edge line was sometimes written from the top downwards, sometimes the opposite way.

The scribe sometimes smudged these edges with his fingers. This is especially true of tablets enclosed in an envelope; it was on these edges that the envelope was most tightly compressed upon the kernel. These edges are often very hard to read in consequence.

47. A scribe never, to my knowledge, divided a word between two lines. Indeed, he often treated stock phrases with an equal respect. When there was not room to finish his phrase at the end of the line, as usual, he continued over the edge rather than go on into another line. This may have been due to the fact that sometimes that line was already filled. He may have been merely 'writing-in' a word, name, or phrase, in a blank left for it, but not large enough. When he wrote over on to the edge he often changed the direction of his line, slanting upwards in a curve on the edge, or writing nearly at right angles to his former direction. He more often wrote straight on, even over on to the reverse. When several such continuations occur on an edge, coming, as they may do, from three or four different quarters, the result is very difficult to disentangle.

I have separated the part of the line written over the edge from that written on the face by a single vertical line. It is often, however, quite impossible to say how much was written on the edge. A little pressure would obliterate the impression.

48. Assyrian is written from left to right and, as above stated, usually parallel to the shorter side. This applies to the single tile and cake-shaped tablets. The pillow-shaped and inner case tablets are generally written the long way of the tablet. Heart-shaped tablets are inscribed all sorts of ways, the lines often not being parallel to one another and, of course, not all of the same length.

The Aramaic dockets are written, like most Semitic writings, from right to left. They are always rather lightly impressed, and, therefore, often hard to read. It is curious to note cases where a scribe wrote his Assyrian backwards, as *kal-e* for *e-kal* in no. 74. Was this the influence of his Aramaic learning, or was it a legacy from the pre-Semitic language which admitted *gi-bil* for *bil-gi* and *zu-ab* for *ap-su*?

49. I have numbered the lines consecutively, as in the Catalogue, except where the Catalogue was wrong as to the number, or took reverse for obverse. In the case of perfect texts it was, of course, easy to number consecutively to the end, but where a text breaks off before the end of the obverse it would be quite impossible to know how many lines are lost before the reverse commences. I meant always to indicate a break by a row of dots, but my intention has not been consistently carried out. It was my custom to write the text with its restorations first, and then to go over it by way of

collation and insert dots, and brackets, and any corrections I could make. I can only suppose that, by misadventure, I sometimes used the wrong kind of ink for my collation and it did not print. It is also, unfortunately, the case that several corrections have not come out clearly, sometimes not at all. I only hope that in my notes I have corrected for each text all these errors. I am glad to say that in few cases do they really give a wrong result, only they are blemishes for which I must apologize.

50. As might be expected, the tablets are of all the colours to be found in burnt or unburnt clay. A single tablet often exhibits several shades of colour. The deep black of some, which is uniform throughout the body of the tablet and not merely a surface tint, is rather hard to account for. One tablet, at least, seems to have been artificially coloured to represent bronze, and there often seems to be some pigment applied, perhaps, to heighten the effect of the writing. The colour, however, affords little help in finding 'joins.' In some cases the two fragments, when joined, present as sharp a contrast of colour as could well be imagined. A fixed colour nomenclature is not to be expected; what passes with one man for 'drab' would be 'yellow' with another. With some 'grey' and 'whitey-brown' would interchange. I do not attempt to defend the colours I ascribe to the tablets. They express a purely subjective opinion.

51. As a note for seeking joins, next to the phrases that occur, the thickness of the tablet is important. For the width is no help at all, unless the whole width has been preserved. The length is equally valueless, unless both fragments preserve the whole length. But, unless some of the surface has flaked off, the thickness is of great service. It led me to several joins when the diction itself suggested nothing likely to help. If both sides of a fragment are preserved, its thickness is, of course, the same as that of the tablet it joins.

52. Of still greater use is the number of lines to the inch. This is practically constant throughout a document. Whatever other device the scribe might adopt to get in his text on a too scanty space; he rarely, if ever, crowded his lines closer together. This is done on some of the literary tablets, but never on a contract. This fact also suggests that the body of the document was written out with blanks left for the insertion of the names and other variable details, to be filled in when settled. We shall meet with several other reasons for thinking this. When a tablet is complete it continually

happens that a stock phrase occurs not only in the same place relatively to the other phrases of the document but actually in the same line. Thus, for example, in a complete slave sale we find the phrase *kaspu gamur tadin*, or part of it, at least, no less than ten times in lines 7—9. A glance at the Glossary will shew that this applies to many other words and phrases.

53. Although there is good reason to think that a great part of the document was written out first and blanks filled in later, I have hitherto failed to detect a different hand in the filling in. So far as I can see, the same person wrote the whole document from beginning to end, with all the insertions.

54. Any one who will take a lump of clay, mould it to the shape of a tablet and practise writing upon it with a glazier's cutter, or any hard stick cut to a square corner, will acquire more knowledge of what to expect on an injured tablet, in a few days practice, than I could explain in a month's thinking and writing. More than that, he will know what I mean when I say a wedge is blurred or a surface 'ran.' If he writes on to the end of his tablet, comes back and erases a word when the surface has set, he will find the surface 'kick up' and, unless he is very careful, there will be a very bad result. He will see why the scribe generally preferred to write his correction over, that is to say, upon the wrong word, rather than try to erase it. He will see, when he has done it, how hard it may be for a copyist, thousands of years after, to make out what he meant. Further if he will shake up a few of his tablets together in a sack, I think he will find the corrected places suffer first and most. If he carry about his tablet, unbaked, in his pocket for a little time, he will get a fair representation of what many of these documents look like. The wedges will be replaced by a series of dents or depressions such as a fellow student would find difficult to read.

In some few cases apparently the clay was remoistened after it had dried, in order to soften it sufficiently to add a few words. Any one who will try the effect of this procedure will find the surface has become 'greasy.' It will be impossible to make the sharp clear impressions necessary for good writing and the result will be very unsatisfactory. The Assyrian scribe was not more successful. Such places are most difficult to make out.

55. Before considering the characteristics of the several classes, with a view to settling their classification and order, it seems best to point out the general characteristics which are not confined to any

one class. They were all dated and, with the exception of the charters or proclamations were all witnessed. In the case of these excepted documents the royal seal affixed to them was their attestation. The way in which the contracting parties appear in the document and the exact nature of the transactions recorded in them are best considered in the introductions to the separate classes. In order to be a contract at all, there must, I imagine, be two contracting parties, though each party may be singular or plural. Whether women could legally contract is a question that has yet to be examined. There must be an exchange of property; a mere committal of property to the charge of a servant is no contract; still less a list or inventory of property in his charge. There must be a bargain of some kind: and it is the legal phraseology in which this is embodied that constitutes the formula of the contract.

56. We may assume that the contract or bargain made was verbally discussed and settled. Then a scribe or notary was called in to embody it in a legally phrased and binding form. This done, each party signified assent, and the witnesses were made cognisant of its existence, even if they did not know its terms. The legal phraseology is to be discussed later. In our Assyrian documents the verbal discussion is rarely alluded to, but in Babylonian documents it is expressly asserted. Thus we read that 'A said thus to B,' followed by a statement of A's proposal apparently in his own words. Then we read 'and B hearkened to A,' followed by a statement of how B complied with A's proposal. The document then came to be a record of a bargain struck and usually is an agreement to stand by it. In our documents, the record of the bargain struck is more formally set out, but the *fait accompli* is equally assumed. So far as it is a contract, it renders legally binding and juridically verifiable a past event. It in no sense is an undertaking to do something in future, beyond abiding by already existing and morally binding engagements.

57. The exact significance of the document should be discoverable from the native names for it. These should indicate, if only we can get at their real meaning, the purpose which the document was supposed to serve. We may expect to find a name for the tablet regarded as a tablet, and a name for the document regarded as a legal instrument. That these names should always be kept distinct in use need not be expected. A man, who had occasion to complain of breach of contract, would be called on to produce

evidence of the contract in court. He would have to produce his tablet, or his document, and further bring up the witnesses to shew that it was that which they had attested. As they did not write their own names, they must have sworn to the contents.

58. In the mouth of the Assyrians themselves the tablet passed by various names. As a tablet, it was called *duppu*. That this name had regard to its tablet nature is shewn by the fact that letters and the long literary tablets are also called *duppu*. Thus the Assyrian recension of the Babylonian Story of the Deluge, published by Haupt as Tafel XI. of the Nimrod-Epos, is called *dup* XI. on the original tablets. It is certain therefore that, whatever the original sense of the word, in our period it denoted the tablet. This is important because an etymology is yet to seek. The same word appears to be an element in *dupšikku*, 'a badge of slavery' (or is it the obligation to do *dup* work?), and in *dupšarru*, a common name for 'a scribe.' Whether these words are really etymologically connected with *duppu* I am not in a position to decide. If Lenormant's equation of *dupšarru* with טִפְסָר be pressed, we ought to read *ṭuppu*. On the other hand there is evidence in the T. A. tablets (see Bezold's *Diplomacy* XIV. § 6 a, and p. 88 rm. 2) for *tuppu*, *duppu*, and *dubbu*. For some etymologies see Schrader *A. B. K.* 15, *K. A. T.*^{2}, 424, 13 f., *Hebraica* VII. 184, and the lexicons. The form *dubbu* suggests a form from *dabâbu*, 'to speak' and *tuppu*, from *tapâpu*, perhaps, 'to smooth out,' 'make plain.' There may be a connection with *tappu*, 'a companion' in the sense of 'duplicate.' For all these contract tablets must have been executed in duplicate, each party taking one copy. The literary tablets were 'copies' or duplicates of older tablets, cf. the term *gabri*, 'duplicate,' applied to them so often in their colophons. The application of the term *duppu* to letters may be a secondary use. The ideogram *IM-DUB*, combining the ideas of *IM* and *DUB*, is rendered *duppu* and also *kungu*. The latter clearly a parallel formation to *duppu*, is from the root *kanagu* for *kanâku*; whence *kunukku*, 'a seal.' The idea of this root seems rather to be 'pressure' than 'sealing.' The *kungu* was the 'pressed' tablet in reference to its mode of manufacture. The sign *IM* is used as an ideogram continually in these texts, taking the place of *duppu*. It is also used for both contracts and letters, and is an ideogram for *šâru*, 'to speak.' The *IM* is that which 'tells' or 'informs.' That *IM* also signifies 'wind' may come through the meaning 'breath': a link between the ideas of 'speech' and 'wind';

or the mere similarity of *šâru*, 'to speak' and *šâru*, 'wind,' may be the connection. *IM-DUB* is the 'informing tablet.' The use of both *IM* and *duppu* alone in the sense of 'document' or 'written communication' is a later and obvious development. If the connection of *dubbu* with *dabâbu* were certain, we should with Meissner, *A. B. P. R*, p. 13, put the sense of 'any kind of writing' as the earlier idea and 'tablet' as the derived sense. Peiser takes the simpler order, 'clay tablet, writing, document.' I am not sure, however, that he is right in putting the material of the tablet so prominently forward. It may be a mere accident that the term is only used of 'clay' tablets. On the whole I incline to think that the idea most prominent is that of 'a tablet as an indication,' being a producible guarantee of the bargain. Like the broken sixpence of old betrothals, it was a producible 'token' of the 'covenant betwixt them made.' As we know, Sargon wrote his name and deeds on *duppâni* of gold, silver, copper, lead and costly minerals. See Lyon's *Sargon*, *passim*. Thus I conclude *duppu* is the tablet, rather as a significant indication, than the tile shaped block of clay.

From another point of view it was called an *egirtu*, a name which it also shared with letters. I am inclined to connect this with *agâru*, 'to hire.' It was properly a note drawn up by a notary for a fee. So a letter may also have been paid for, either to get it written or carried: compare ἄγγαρος, 'a courier,' and see the lexicons. The Aramaic dockets also apply this term to the document, calling it the אגרת. There seems therefore no need to call in the intervention of Persian for אִגֶּרֶת in Esther and Nehemiah. I am inclined to think that the idea of 'ordering,' 'commanding' lies at the back of these words, for the letter, the servant, and the messenger alike do one's behest or make it known. Perhaps the idea of 'suggestion' may be able to link up with these *egirru*, 'a dream.' At any rate, here again the prominent idea of the name *egirtu* for our documents has regard to their being a written voucher for the bargain already made between the parties. It is as 'a voucher' rather than as a 'document' or a 'piece of writing' that it appears. It is in virtue of its written nature that it is able to fulfil this function: not in virtue of its being made of clay, nor because it was paid for. The same words on parchment or papyrus would have served the same purpose, and would have been equally valid, even if the notary had not got his fee. Hence while *agâru* is usually used to mean 'hiring,' I submit that it earlier meant 'to order,' or 'suggest,' or something similar.

Yet another name is *dannîtu* or *dannâtu*. This I connect with *danânu*, 'to be or become firm,' 'strong'; used of 'strengthening' cities. When a ruler made some place his 'stronghold,' he made it *âl dannûtišu*. This term must mean the confirmation or validation of a verbal compact. Meissner, *B. A. S.* II. 570, regards this term as denoting a document written on clay, as opposed to one inscribed on stone or graven on metal. He is so far right, that we do not know that such a monumental agreement was ever called a *dannîtu*; and we may admit, that that form which was inscribed on stone and often adorned with figures was properly called *asumêtu*; but here again, I do not think the material is prominently before the mind, only the contents. An *asumêtu* was only a glorified *dannîtu*. The Aramaic dockets give the form דנת.

59. The person always put in the closest relation to the tablet is the *aba* or 'scribe.' His name is possibly ideographic, *A-BA* may perhaps mean 'one who makes the answer' if *A* = *aplu* is really connected with *apâlu*, 'to reply.' But *A* is also = *abu*, 'a father,' and *ba* may be a phonetic complement. We may then compare *AB-BA*, used for fathers in the sense of 'elders.' Dr Oppert, always takes the term as non-Semitic and reads it *milu*: cf. *Doc. Jur.* p. 144 and *passim*. What *milu* really means or where the equation was found I do not know. *A* = *mîlu*, in the sense of 'a flood of water'; see Brünnow no. 11346. This can hardly be a link. It seems to me much more likely that *aba* is really Semitic and originally meant 'father,' then 'elder,' in opposition to the younger members of the tribe. We all know what a prominent place the 'elders' took in all primitive legal business. It may have been a recognised custom for an 'elder' to be called on to put into proper form the compact verbally made. Hence the function may have become specialised and *aba* may have been retained as the title of a notary public.

We find the *aba* discharging other functions, all of them consonant with his capacity as a 'writer.' We find the astronomer's reports sent by an *aba*, e.g. *K.* 741, III. *R.* 51, no. 6. Hence some have rendered the word by 'astronomer.' It is unlikely that an astronomer would be called in, even by the Assyrians, to draw up a contract. Dr Oppert renders the word variously as 'judge,' 'president,' 'doctor' etc.: *Doc. Jur. passim*. Dr Bezold takes a rather common Continental view of an obscure office and dubs him 'priest.' I have not noticed that any one has yet called him 'eunuch.' That the

same person acted as *aba* and as 'priest' is likely enough. That all priests were necessarily scribes, or that scribes were usually priests, astronomers, or eunuchs, is too much to say. The title *aba* implies nothing more than his capacity to act as 'clerk' or 'scribe.' I doubt whether his mere assistance at a bargain gave it any special validity. That was secured by the seal of the consenting party and the attestation of witnesses. He only contributed the clerkly skill in drafting the document and the legal knowledge of its proper form.

60. The function of the *aba* is expressed, in his own terms, by the words *ṣâbit dannîti*. The word *ṣâbit* is often replaced by *LU*, which is the ideogram for the verb *ṣabâtu* and its derivatives. We may assume that *LU* was always read *ṣâbit* in this connection. In some other cases, however, it was used as an ideogram for *mukîl*, 'one who looks after or attends to something.' The sense of *ṣabâtu* in this connection must be 'to hold,' or 'retain possession'; unless we fall back on the use of *ṣabâtu* in the sense of 'repairing,' 'making good' (breaches in a wall or defects in a building). From the latter sense we might pass to that of 'preparation' or 'substantiation.' If we take *ṣâbit dannîti* to mean 'holder of the agreement,' we may suppose that the *aba* held a copy of the document, and could at all times be called on to produce it or furnish a copy in case either party should lose his own. For this service he would probably take a fee. But we need not go further than to suppose that he held the agreement solely as an intermediary, and gave up his hold to each party in turn on conclusion of the agreement and receipt of his fee. That he actually at one time held possession of the document is obvious from the fact of his writing it and appears further from the variants to *dannîti*. They are *duppu*, 'the actual tablet,' *egirtu*, properly a 'letter or document for which a fee is to be paid,' and *IM*, the ideogram for 'tablet,' 'letter,' and 'speech.' The document was of course the written speech, it embodied the verbal contract, and in later Babylonian times expressly quotes the verbal propositions of the negotiators. As if to remove all doubt, in no. 185 we have *aba ṣâbit dan-nat šuati*, 'the scribe who holds this agreement.'

That the *aba ṣâbit duppi* was no more than the notary who drew up the document could hardly have ever been doubted, except for the sake of a false theory that required some one to act in a judicial capacity and fixed on him as the only hope. If any doubt remains, we may mark the gradual passage of the *aba* over into the regular Babylonian *dupšar*, whom no one surely will regard as a judge.

Thus in *K.* 3790 we have *aba šâṭir úilti*; in Rm. 157, *amêl šâṭir úilti*; in Rm. 184, *dupšar šâṭir úilti* and finally *dupšar* alone. These variants occur in a set of Babylonian contracts relating to the business affairs of Ubarru, which seem to have found their way into the archives at Nineveh in the time of Esarhaddon. This renders it certain that here we have to do with documents of the same date as the Assyrian documents and with a sort of transition stage in phraseology. The term *úilti*, or *úantim* as it was long read, is the Babylonian representative of *duppu* or *egirtu*. It does not occur in our Assyrian documents, and need not be discussed here. The replacement of *úilti* by *duppu* in the phrase *aba šâṭir úilti* fixes the function of the *aba* once for all. He is the writer of the document as well as the holder of the agreement. The series of variants form a strong argument for the identity of the *aba* and the *dupšar*. The latter is one of the commonest designations of the scribe in the later Babylonian contracts; as far as I know, it only once occurs in our documents, in no. 12, and then not as scribe of the document, but as the title of a witness. The passage of the term *dupšar* over into *amêl RID* is very instructive. We usually render the latter by *šangu* or 'priest': but it is certain that in the later times the *amêl RID* is often only 'a scribe.' His priesthood did not come into the question.

But that the *amêl RID* was primarily connected with the drawing up of documents is not unlikely, when we note that the ideogram for the seal is *TAK. RID*, 'the stone of the *RID*,' or the stone of the action which is symbolised by *RID*. That this was a sign for the hand is not quite certain, but I do not deny it. Only I believe the idea of 'affirmation,' perhaps of 'confirmation,' is present in both ideograms; the *amêl RID* is the 'affirmator,' 'he who draws up the affirmation'; the *TAK. RID* is the 'stone of affirmation.' The document makes firm, in virtue of that seal, the contract previously verbally concluded.

In the early Babylonian contracts also we find the *dupšar* named, see Meissner *A. B. P. R. passim*. He is usually named last among the witnesses, as in our documents the *aba* is. That the *aba* was a distinct class does not follow from the above discussion, many of the *aba* followed other callings as well. It was however in some cases a distinct profession and there was a large number of *aba* in the times of the Sargonids. About a hundred and fifty of them are named in our documents. Every great household appears to

have had its *aba*; the *aba mâti*, or *aba êkalli*, the 'palace' scribe or national scribe, is often named. The *aba* of the Queen Mother in no. 428; of the Queen-Consort, in no. 185; of the temple, *bîti-ili*, in no. 575; of the *sukallu*, in no. 161; of the *bêl piḫâti* of Dûr-Sargon, in no. 27; of particular cities, as Nineveh in no. 58; Arapḫa, in no. 468; and of districts or tribes, as of Bît-Ašur-li' in no. 444; point to a very general distribution. The ability to write other scripts and languages seems to be implied in the title *Aba Armai*, 'Aramaic scribe' and *aba Muṣurai*, 'Egyptian scribe'; though it is conceivable that these terms only denote nationality. In no. 385, we read of the 'Aramaic scribe of the king's son.'

As might be expected from Nabû's position as god of literature and therefore in a sense patron of scribes, a large number of scribes' names are compounded in some way with Nabû. In our documents about one-third are so compounded. It is only fair to notice however that, whether from this cause or not, the names compounded of Nabû are largely in excess of any other class of theophorons named in our texts.

61. We often find, at the end of a document, the clause 'so much money for his seal.' We might at once conclude that the notary sealed the document and was paid for it. This does not seem to be the case. The only person who ever sealed an Assyrian document seems to have been the seller, lender, or original owner. In earlier times witnesses are said to have sealed documents, but in our documents neither buyer, scribe, nor witness is ever said to have set his seal. It was the seal actually on the document that is referred to in this notice; for this clause always corresponds with the statements of the preamble or heading of the document. When the seller impressed only his nailmark, so much is charged, not for his seal, but for his nailmark. When more than one seller sealed, so much is charged for 'their seal.' Hence it was for the actual sealing of the document that the charge was made, and that is expressly ascribed to some one not the scribe.

We may therefore imagine it was a deposit on the price to be paid. The document however explicitly states that the bargain is already complete, the purchase has been delivered and the full price paid. Hence there seems no call for a deposit. It is true that in some cases the purchase does not seem to have been actually delivered at once, and in these cases a deposit may have been made. Also it may have been the custom to make a little present to the

seller, on getting his seal, as a sort of gratification over and above and independent of the price. On the whole, however, I think this clause refers to a notary's fee.

The amounts charged and their relation to the price must be noted before we have taken all data into consideration. A list of them may be of interest. Thus we have: 7 shekels of silver charged on a price of 140 shekels of silver, in no. 173; one shekel of silver on 32 shekels, in no. 354; one mina of bronze on 50 minas, in no. 176; 4 minas of bronze on 80 minas, in no. 350; 4 minas of bronze on 180, in no. 248; half a mina of bronze on one mina of silver, in no 216; one mina of bronze on 30 shekels of silver, in no. 179; 4 minas of bronze on $3\frac{2}{3}$ minas of silver, in no. 328; and at least one mina of bronze on 50 minas of bronze, in no. 181. The ratio is clearly not a constant one, it varies from one-twentieth to one-fiftieth. In one case it was paid in corn, one homer of barley on a purchase price of twenty shekels of silver, in no. 329. We may perhaps conclude that a homer of barley was worth not more than one shekel of silver nor less than two-fifths; but it is rather slender evidence. In other cases where the clause occurs we are left uncertain of the ratio to the price. Thus we have, in no. 382, three minas of bronze, in no. 393, at least one third of a shekel of silver on two minas of silver, in no. 274, one shekel of silver, in no. 511, at least one shekel of silver, in no. 199, at least one mina of bronze out of thirty minas, and, in no. 257, at least one mina of silver out of two minas of silver.

The suggestion that this was a notary's fee has already been made by Professor Dr J. Kohler *A.B.R.* p. 211. Professor Hoffmann, *Z.A.* XI. p. 226, also thinks this may be the fee of the notary who drew up the contract; 'in which case the *ṣupru* in the body of the document would refer to the authenticating subscription by the notary.' It was however a fee paid for sealing the document and the notary did not do that. It is not likely at any rate that he would be paid for impressing his nailmark. I think we may find a way out of the difficulty by supposing that the fee was paid him for obtaining the seller's seal or nailmark. I assume he waited on the parties separately, heard their views, drew up the document, and then went and read it over to the parties in turn. If they were satisfied, they impressed their seals. The buyer would wish to have his copy sealed by the seller and for obtaining the seller's seal to the document he would pay this notary's fee. It is very

singular that among all our documents not one is sealed by the buyer. Surely the seller must have been at least as anxious as the buyer to be protected against any future repudiation of the bargain. I believe the explanation to be that we as yet have only found buyer's copies. They record purchases made for the Court and Royal Household, who did not sell. A collection of really private contracts, belonging to some Assyrian business house or private family would, I feel sure, include documents bearing a buyer's seal. For obtaining the buyer's seal to his copy the seller doubtless paid the notary another fee. Thus legal expenses were equally shared by the two parties.

That the amount charged by the *aba* was entered on the document itself was due, I believe, to the fact that the purchase was made by a steward acting on behalf of the Royal Household. He would naturally wish to be able to produce documentary evidence for all his disbursements, when he should be called on to give an account of his stewardship. It was of course a protection against any further demand.

Such seems to me to be a reasonable explanation of the clause and its presence in the document. Absolute certainty is difficult to obtain, but we may perhaps some day find a steward's accounts, giving the items of his expenditure. That will settle the matter.

62. The date and attestation usually occupy a section by themselves, divided by a ruled line from the rest of the document.

The place of the date does not vary very much. It occurs occasionally at the end of the formula, but usually after the witnesses and at the foot of the reverse of the tablet. It often happens that the scribe adds a few more witnesses after the date, upon the lower edge and the left hand or right hand edge. From this custom it probably came to pass that the date on some tablets occurs part way up the list of witnesses. This was no doubt the result of copying the list from another tablet, on which the date came at the lower edge of the tablet, and what now appears below it was originally on the edges.

The date follows a very fairly constant type: e.g. *K.* 322, our no. 631, is dated thus, *arḫi Nisâni ûmi XXVIII.* (*kan*) *limmu Danânu*, i.e. 'month Nisânu, day twenty-eighth, Eponymy of Danânu.'

63. The year, and probably therefore each Eponymy, beginning with the 1st of Nisânu, and this month falling in March-April, three months of the year B.C. 680 fall under the Eponymy preceding that

of Danânu. We are fairly certain that the above date really is B.C. 680, and as it is the 28th, we are fairly sure the date is somewhere in April. It is a much more intricate question to decide which day of March, B.C. 680, was then taken to be the first of Nisânu. It is a question for chronologists to discuss and settle, if they really can. For my own part, I do not see quite what grounds they have for their calculations.

Consequently upon this uncertainty as to the date at which a year commenced and also in default of knowledge as to the exact length of each Assyrian year, we do not know, for example, when we reach the ninth month of the Assyrian year, say the month of Kislimu, of the Eponymy of Danânu, whether we are in B.C. 680 or B.C. 679. Of course when we reach the end of the tenth month we may feel fairly sure we are in B.C. 679: but at the commencement of that month we have many reasons to doubt. Hence while roughly we may say that in the Eponymy of Danânu, the first nine months of the year are B.C. 680, and the last three are in B.C. 679: we must remember that Kislimu and Ṭebêtu are not certain: for them we must write B.C. 680–679.

However, this much is certain, every day of Nisânu in the Eponymy of Danânu was in B.C. 680.

In the Catalogue, Dr Bezold usually writes for Nisânu, March-April, in English. Such an expression as 'March-April,' however, does not denote a month at all, only a vague period which is of uncertain length. If, for example, Nisânu really began on the 25th of March in B.C. 680 then the 6th of Nisânu was in April, and the 28th was in April also. If for any reason we are to date the 1st of Nisânu earlier in March, we must count more of the days of Nisânu in March and the rest in April. On any system whatever it is impossible that we are to write March-April both for the 1st and the 30th of Nisânu. I therefore prefer to write the above date 28th of Nisânu B.C. 680. There is no need to put any question mark to this, unless indeed we suspect that we can adopt a different year for the Eponymy of Danânu.

The effect of Dr Bezold's system is that the majority of the dates, as he reads them, have a query attached. It may well be the case that I have not really divined the reason for these marks of doubt. The system which G. Smith adopted, and which I have simply copied in my list of dated tablets at the end of Vol. I., is at least intelligible. In the comments on the individual texts will be found

notices of the various dates assigned to the post-Canon Eponyms. Also an attempt to fix the order, and therefore the dates within a few years, of these Eponyms will be found in the Chapter on the Chronology of our documents.

The order of statement of the date is not quite invariable. Thus in no. 179 we have *limmu Nabû-dûr-uṣur arḫi Ṭebêtu ûmi VII* (*kam*).

64. The word for 'month,' *arḫu*, is invariably written ideographically *ITU*, Br. 956. A phonetic spelling in this connection I have not met. It is usual to read *araḫ Nisânu*, on the analogy, I suppose, of Araḫsamna, which is phonetically spelt A-ra-aḫ-sam-na and A-ra-aḫ-sa-am-nu; see Del. *H. W. B.* 242, a. Whether this is really a valid analogy, I doubt. A preposition *ina* occasionally precedes *arḫu*, and that inclines me to read *arḫi*, as the phrase clearly means 'in the month.' This preposition is written with the single horizontal wedge possibly in nos. 88, 218, 234, 266, and certainly in no. 468. In many other cases the first horizontal wedge of *ITU* is written so far to the left as to give me the impression that the scribe had the preposition in his mind. Dr Oppert in *Doc. Jur.* read *aráḫ*, Dr Peiser in *K. B.* IV. reads (*arḫu*).

65. The names of the months call for no remark, but the comparative frequency with which they are named in these documents is rather curious. It may be purely accidental, but it is surely remarkable, that in these business transactions Aaru is mentioned six times as often as Kislimu. Taken in the order of the Assyrian Calendar we have these figures: Nisânu 47 times, Aaru 60 times, Simânu 31 times, Du'uzu 21 times, Âbu 27 times, Ulûlu 27 times, Tešrîtu 38 times, Araḫsamna 18 times, Kislimu 10 times, Ṭebêtu 30 times, Šabâṭu 29 times, and Addaru 29 times.

66. The intercalary month, a second Adar, or *Addaru maḫru*, is named only once in no. 53, in the year B.C. 672. As is pointed out by Professor Oppert, *Le Droit*, p. 7 f., this does not at all agree with the system deduced by E. Mahler, according to which an intercalary month would fall in the 3rd, 6th, 8th, 11th, 14th, 16th, and 19 years of a cycle commencing with B.C. 747. It, however, leaves us still in doubt as to how often and in what years the Assyrians did actually have an intercalary month.

Another 'second Adar' fell in the third year of Esarhaddon's reign, as we know from 82—9—18, 219, a Babylonian tablet; dated on the 15th of this month. This also is not in accordance with Dr Mahler's cycle.

67. It is usual for the date to begin, as above, with the month, and then *ûmi* follows. As a rule this is simply expressed by the ideogram for 'day,' *UD*, followed by the numeral. A phonetic spelling is however indicated in no. 105, where we have *UD-me*, to be read *ûme*. In no. 231 we have *UD-mu* that is *ûmu*. In *Doc. Jur.* Oppert read *yum*; Peiser, in *K. B.* IV., reads *umu*. In no. 212 *UD-MEŠ* seems to have been written, and that would be read *ûmê*. On the whole, therefore, I am inclined to read *ûmi*.

The day of the month is omitted entirely in many cases, so often indeed as to leave little doubt that the omission was intentional. I have noted nos. 119, 126, 129, 148, 158, 163, 204, 229, 230, 232, 233, 238, 243, 299, 404, and 491. In no. 115 *UD* is omitted, while the numeral is given. This I expect was a clerical error.

68. The numerals used in expressing the day of the month are the same in every respect as those used for enumerating objects. At the end of the glossary will be found a collection of the numerals employed in these documents generally. The addition of *kan* turns these cardinal members into ordinals, there is no reason to doubt that *ûmi XXVII* (*kan*) was understood to be 'day twenty-eighth' and not 'day twenty-eight.' The entire absence of phonetic spellings in this connection leaves us some doubt as to the way in which these ordinals were read aloud. For example, was 'the third day' *ûmi šalšu*, or what?

The sign *kam* or *kan* exists in three forms: it is never used in these documents, except in dates. In the Babylonian contracts numbers are often followed by *TA*, to which *A-AN* may be added, as a sign of the plural, or of repetition.

69. With respect to the dates there are some noteworthy facts. The first of the month is most often named, as was natural; loans would date from the 1st, and probably all leases and many sales. There are nearly forty such dates. The twentieth of the month appears to be the next most popular day for doing business. We have nineteen documents dated on the twentieth. The 26th with 17 times, the 15th with 16 times, the 10th, 12th, 16th, 21st each with 15 times, the 22nd with 14 times, are fairly popular. There is no decided break in the list, and probably the relative popularity is partly accidental.

On the other hand the 7th day with 11 times, the 14th with 9, the 21st with 15, and the 28th with 10 times do not shew any marked abstinence from secular business on those days. They were

not kept with puritan respect for the Sabbath, if Sabbaths they really were. On the 19th day, however, we do seem to have a marked abstinence from business. The only documents dated on that 'evil day' are possibly nos. 472 and 711. The date of the former is doubtful, that of the latter certain. One could hardly wish for a more marked proof of the cessation of business on the 19th. It must have been observed as a *dies non* in commercial circles. The end of the month gives few dates. On the 28th there are ten; but on the 29th, only three; and on the 30th, only two. This may be due to the nearness of the first of the next month. It may have seemed better, even when business was done on the 30th, to date the agreement on the 1st.

We have however definite proof, that at least two Assyrian months had thirty days. As we learn from no. 198, Addâru was one. In no. 112 the name of the month is not preserved. The dates for the 29th shew that at any rate Âbu, Du'uzu and Simânu had more than twenty-eight days.

70. The most interesting part of these dates is the Eponymy. The word for it is given in the three forms *lim-mu*, *lim-me* and *li-mu*. The first is by far the most common, but the second is frequent enough, and the third occurs eight times.

The word is omitted in nos. 6, 125, 146, 148, and perhaps no. 320. In these cases however the day and month are given. They deserve further notice. In no. 6, the 18th of Simanu is given in rev. 2, but rev. 3 has (*ši* or) *lim*. Zubiṣidḳi. No Eponym of this name is known. Probably this is a genuine case of Eponymy omitted. The loan there dealt with would probably be returned within the year and therefore only the month may have been needed. In no. 125, rev. 7 has 'the 3rd of Kislîmu,' and in the next line the name of Sennacherib is written. He could hardly have been a witness, but he was Eponym in B.C. 687. We may therefore consider this a genuine case of the omission of *limmu*. Whether this was an error really or whether the king's name did not seem to need the note *limmu*, I cannot decide. In no. 146, a defective tablet, the omission may not be real. There was room to write the Eponymy on the part preserved; on the other hand, it may have been written on the part that has been destroyed. It may not have been needed, as the loan of grain would be repaid the same year. In no. 148, the month Aaru is given, but no day. The name Girizakanni follows. That this was the name of a witness is possible, but the usual sign of

a witness is omitted. This seems to be a genuine case of the omission of *limmu*, but as in no. 125, the name is probably that of the Eponym. It has been suggested to me that Girizakanni is an error for Girişapuni, that is, for *kan* we are to read *pu*. Dr Oppert, *Z. A.* XIII. p. 254, assumes the Eponymy is that of Girzapunu, without any question.

In no. 320, there is no sign of *limmu* having been written, but Bêlemuranni is the name of the Eponym of B.C. 691. This may be another genuine case of omission of *limmu*. In no. 284, rev. 12, only *ši*, that is *lim*, is written before Marlarim, who certainly was the Eponym. This lends some support to the idea that in no. 6, we have the same thing. In no. 698, rev. 3, we have the unusual turn given, *ina limme Sagab*. It is noteworthy that in Dr Bezold's Canon List, 81—2—4, 187, pub. *P. S. B. A*, XI., we also have *ina li-me*, obv. 33, rev. 6, 25.

71. Dates by the regnal year of the king alone are rare, though this was the common Babylonian use. In no. 89 the year is given as the 22nd year of Sennacherib.

72. Very interesting are the double dates. They are not numerous in our documents.

In no. 230 we are told that Aaru B.C. 684 was in the 22nd year of Sennacherib.

In no. 447 Aaru B.C. 683 is said to be the 23rd year of Sennacherib.

In no. 502 Nisânu B.C. 676 is said to be the 5th year of Esarhaddon.

In no. 660 a (see Appendix) the year B.C. 714 is said to be the 9th year of Sargon.

73. An addition to the date occurs, in several cases, that is somewhat obscure.

Thus no. 330 is dated the 25th of Nisânu, B.C. 676, *ina tarṣi Ašuraḥiddin, šar mât Aššur*: no. 359 is dated the 18th of Du'uzu B.C. 680, and on the left-hand edge may be restored possibly *ina tarṣi Ašuraḥiddin šar mât Aššur kirû laḳḳi*: no. 360 is dated the 28th of Aaru, B.C. 680, *ina tarṣi Ašuraḥiddin šar mât Aššur*.

If the restoration that I propose, for the second case above, be admitted, the phrase *ina tarṣi* can hardly mean 'in the time of,' but rather 'by the direction of.' See, however, Del. *H. W. B.* p. 175.

In no. 208, after the date 27th of Âbu (not Ṭebêtu as I wrongly put in the head-line) B.C. 668, we read *ina LAL-iṣ Ašurbanipal šar*

mât Aššur: here *LAL = tarâṣu* and its derivatives, and *iṣ* is the phonetic suffix; and consequently we read *ina tiriṣ*.

In no. 299 the date is given in Aaru, some *limmu*, the name of the Eponym being lost; then we read *ina ti-ri-ṣi*, a name beginning with *ilu* or *Ašur* and *šar mât* (*Aššur*). That supports my reading of *LAL-iṣ* as *tiriṣ*.

In no. 403 the date is on the 10th of Araḥsamna, *pâni tarṣi Ilu...amêl šakin âl...limmu....* Here *tarsi* can hardly mean 'in the time of,' for there would surely be no object in giving the name of the official, then *šaknu* of some city, if the Eponym was to follow, as here it did.

The cases quoted, by Del. *H. W. B.* p. 715 *b*, of *tarṣi* with a temporal sense, 'in the time of,' may be taken differently: *ištu tarṣi abêia*, 'from the rule of my fathers' may imply 'from the time when they ruled,' but does not compel us to render *ina tarṣi* 'in the time of,' only 'under the rule or direction of.' The cases of *ina tirṣi šarrâni abêia* admit the same rendering.

It is of course possible in each of the above cases to render 'in the time of,' without contradicting the context, but it is a pointless addition to a date. One would expect the year to be stated, as in the first case, 'in the 5th year of Esarhaddon.' 'By the direction of' suits equally well in every case and would be an important note that the property was acquired, e.g. *kirû laḳḳi*, 'the plantation was taken possession of' by the king's order. So too, in no. 299, it would be acquired by order of the *šaknu*.

Professor Oppert has pointed out this meaning of *ina tarṣi*, *Z. A.* XIII. p. 268, where he renders it '*durch die Anwesenheit des Königs*.' Dr Peiser, *K. B.* IV. p. 135, renders '*in der Regierungszeit*.'

An interesting meteorological note is added in no. 360. *II ûmû(plu) II mûšâti mê udrute iznûn*, 'two days and two nights torrents of rain fell.' This must have been an alarming occurrence in a district of marshes and low lying gardens like Nineveh. Heavy and devastating storms still occur there, but they are usually of short duration.

74. A few general remarks on the lists of witnesses may be made here.

In the Assyrian contracts the witnesses are always indicated by the sign *ŠI*, doubtless read *pân* or *maḫar*, and meaning 'before.' The Babylonian contracts usually write (*amêl*) *mukinnu* as the title of the list. This surely meant the persons 'certifying or attesting' the

document. In many cases among the later documents we have *ina GUB-zu*, to be read *ina nazâzu*, which is closely parallel to our *pân* and must clearly have meant 'in the presence of.' It may be doubted whether in actual use any real difference was expressed by selecting one or the other form. They all equally marked off the witnesses from all other parties. In *B. A. S.* I. p. 496 will be found some discussion of the views that have been held as to the meaning of these expressions. I think that Delitzsch's 'bescheinigt' (see Lex. on III. R 46, Nr. 1, 40, and Nr. 7, 12. H. W. B. does not appear to notice the use) was peculiarly appropriate. That the person indicated by *ŠI* did anything more than witness the deed, I doubt entirely. As *ŠI* also means, 'to see,' perhaps we can have a verb here, *vidit*, or *viderunt*. There is not a shred of evidence that he could refuse, or would demand to see any evidences, or in fact would do more than hear the parties consent, and allow his name to be written down as one to whom reference could be made, if documentary evidence perished.

When Rawlinson, *J. R. A. S.* '65, p. 213, rendered (*amêl*) *mukinnu* by 'the persons putting their names,' it was excellent in so far as they did for the document in Babylonian times what a witness signing a deed does now. But it was unfortunate, for 'the putting of the name' was merely the impression of the seal, after the name written by the scribe, or before it, or upon it. For, in Assyrian times, the name was written only by the scribe; and the witness, whatever verbal declaration he may have made as to his knowledge and consent, neither put his seal-mark nor his nail-mark to the deed. A mere acceptance of this free rendering seems to have induced Dr Bezold in the Catalogue, p. 538, K 3493, to describe the seal impressions as those of the witnesses, and led Professor Sayce to deduce the opinion, that, while in Assyria the witnesses never wrote their names, in Babylonia people were so generally educated that every man could at least write his own name: (*Social Life among the Assyrians and Babylonians*, p. 41).

Professor Sayce has not seen fit to point out the secret of ancient educationalists which enabled them so to teach writing, that, when a man signed his name to a document, he wrote exactly like the scribe who had drawn up the body of it, while the scribes themselves were able to keep their individuality. His deduction is absolutely unfounded, there is no evidence that men in general could write their own names or anything else. On the other hand it is certain that

many men could and did write not only letters, but draw up contracts; and in Assyria, at any rate, the man who drew up the contract wrote all that was written on the tablet, unless perhaps the Aramaic dockets. There is no trace anywhere of a different hand among the witnesses. The handwriting among Assyrian scribes was very characteristic of the individual, and any change would be very obvious if it existed. Whether different hands ever occur on the same Babylonian document I do not know, for I have not examined them all: but I have seen no published facsimiles that lead me to think so.

A safer rendering of (*amêl*) *mukinnu* would be 'the persons whose names are put.' It may well be, however, that *mukinnu* means more; it literally is 'one who makes sure or steadfast.' That is the true function of the witness. Whether at any period the witness held himself responsible, with others or alone, for seeing that the agreement was adhered to, I doubt. He does not appear to be a trustee, only a witness to fact. I think it very likely that *mukinnu* was the name of 'the witness' in Assyria as well, only it never occurs so written.

The name of each witness is, as a rule, preceded by *pân*. In some cases, where two or more names of witnesses have to be written in one line, the sign *ŠI* may be replaced by *GAM* as sign of repetition; but is often omitted: see, for example, nos. 102, 6; 163, R. 10; 310 R. 19; 374, R. 10, 12, 14, 15, 16; 622, R. 7; 624, R. 8, 9, 11; and often.

The use of *ŠI* to denote the witnesses was also an old Babylonian custom (see *C. T. passim*), and occasionally occurs in Strassmaier's contracts.

75. The witnesses, as one would expect, were often persons indirectly interested in the transaction. Sometimes they are the relatives of the seller: his father, his son, or his brother, e.g. no. 385.

Very often indeed they are fellow citizens, *mârê ališu*. Here the *šu* refers clearly to the seller. See nos. 175, 391.

They are often named already in the document, as neighbours, whose property adjoined that sold.

Often they were divided into groups, each group belonging to the same city. In such cases we usually find at the end of the group, *napḫar X ŠI-MEŠ ša âli Y*, 'in all *X* witnesses from the city *Y*.' It is doubtful whether we are to read *ŠI-MEŠ* as *mukinnute* or only *pâni*. The sign which I read *napḫar* is written *BAB*. It was read

napḫariš for some time, e.g. in *P.S.B.A.* iv. 113; *Pognon Bav.* 168; Lotz, *T. Pl.* 145 &c. The Tel el Amarna tablet edited by Sayce in *P. S. B. A.* x. 525, No. xiii. B. rev. 14, interchanges *BAB* or *KIL*, which Sayce read *Kal*, with *na-ap-ḫa-ar*. Hence Peiser in *K. B.* iv. *passim*, reads *napḫar*. The sign *BAB* however in *K.* 181, rev. 4, is clearly to be read Gimir or Gamir, as I pointed out in *P.S.B.A.* xvii. p. 228; and as Pinches had already remarked in the *New York Independent*. In that case, however, it has a phonetic suffix; still, in this connection, I prefer to read *napḫar*.

Examples of this kind are to be found in nos. 175, 244, 246, 310, 350, and often.

76. There is a very marked difference between the methods adopted for fixing the personal identity of a witness in the Babylonian documents and in our Assyrian deeds. In the Babylonian contracts, which are in my opinion quite correctly described as 'private' documents, we usually find the witnesses as well as the parties set down as son of So-and-so and grandson of So-and-so; that is to say, with each name is also given that of the father and grandfather. Hence we can construct the pedigrees of some of the persons, as has already been done by Peiser and Kohler, *Bab. Rechtsl.* iv. p. 22.

This method is partly adopted in our documents, but only occasionally. We have a witness described as son of So-and-so, fairly frequently. Thus for example we find Mardukšarusur mentioned as son of Gabê in nos. 115, 116, 418, 429, 433, and 611. From a letter 82—5—22, 131 he appears to have been an inhabitant of Erech. He retains this designation, as though it were a title, while his fellow witnesses are all given their titles.

When the witnesses are given as private individuals, this method is especially frequent, but in our texts the grandfather's name is never appended, nor is the title added.

I am inclined to think that this usage is *primâ facie* evidence of the 'private' nature of the document.

In most cases the name occurs followed by a title only. This marks the fact, probably, that the witness was called on, as an official. It was proper that his attention should be called to the document. We may inquire what determined his presence as witness. At once we remark, that the buyer seems to have called his witnesses as well as the seller. The same buyer is generally accompanied by the same group of officials as witnesses. Thus, for

example, that oft-named buyer Rîmâni-Adad has a wonderfully constant group of witnesses for the space of twelve years. It is most instructive to watch the way in which this group varies. Some names drop out and others gradually rise towards the top of the list. They are arranged in order of official precedence, and when two or more of the same rank appear together probably in order of seniority. An examination of such groups leads to some interesting conclusions as to the rank of the officials. I have accordingly devoted a section of the chapter on the officials to this question of precedence in rank.

Further, when the same group of witnesses appears, on a document recording the purchase by another buyer, we may conclude the new purchaser to have succeeded to the office held by the former, or at least to be temporarily acting in his place.

The changes that take place in the order of officials in a group may also be made a basis for determining the date. It is obvious to assume that each official rose as time went on. If then he occupies at one time a place higher in the list or in rank than that assigned him at another, we may assume this to be a later list. Such conclusions are abundantly confirmed by the dates when really certain, and help to fix the order of the Post-Canon Eponyms. Proof it is not, but yet a strong presumption.

77. The population of Nineveh in the last days of the Empire was of a very mixed nature. It is not hastily to be assumed that this applies to the population of the country, but the repeated deportation of the inhabitants of conquered lands to Assyria and its subject province must have been a contributory factor. Madame Z. Ragozin in *The Story of the Nations*, *Assyria*, p. 431 f., has shrewdly surmised that this was a source of weakness to the country. In my opinion the Assyrians were always merely a ruling and dominant caste in the land. The *ṣalmât ḳaḳḳadi*, so often mentioned by the Assyrian kings, were very likely not Assyrians at all, though in the course of centuries the lower classes may have become a mixed race. I doubt if the subject population was even Semitic. The place names of Assyria are surely not so. An examination of them will shew, I believe, that they are relics of that same race who overspread at least portions of Asia Minor and whom Kretschmer traces into Europe as far as the Basque provinces of Spain. Whether this people had anything to do with the Sumerians and Akkadians I leave others to determine. I imagine this great subject population to have often changed masters and to have been contentedly

indifferent to a change of overlords. They probably offered small resistance to Medes or Persians. How numerous the real Assyrians were is difficult to decide, but I think they furnished the military and official classes only. If so, the incessant wars must have been a heavy drain on their numbers, and as time goes on the increasingly frequent appearance of foreign names in the official lists at court points to a gradual depletion of the Assyrian stock.

There is considerable evidence to shew that some subject provinces were very completely Assyrianised. As already remarked the Cappadocian tablets suggest a strong Assyrian element in the population of Cappadocia. Our no. 743 shews the presence of a number of Assyrian colonists in the land of Ḳue. The letter of Mardukšumuṣur *H.A.B.L.* p. 444, shews that an Assyrian king assigned him an estate in Ḥalaḫḫi. Our no. 755 gives a list of estates in Ḥalaḫḫi assigned to Aḥi-aḳamu. As is well known the Assyrian kings expressly state that they colonised certain districts and settled their old inhabitants in the home provinces. In our documents we certainly meet with many foreign names, not only of slaves, but as independent parties to the contracts.

It is natural to expect many foreign names among the slaves, and as in Oriental despotisms there is usually no gradation of nobility, and nothing to prevent the slave of to-day from being the Vizier of to-morrow; we may look for foreign names in high offices. Yet there seems always to have been something like an old aristocracy in Assyria, till later times. The trade was earlier for the most part in the hands of Aramaeans, and though these probably settled in Assyria and in time bore Assyrian names, it is quite common to find traders bearing non-Assyrian names. By colonisation, by slavery, and by trade the country was filled with foreigners.

This admixture of foreign races must have made for progress in all the arts of civilized life, and the relations so established may have opened avenues to trade; but it undoubtedly had a weakening effect upon national sentiment. The additions so made to the population were drawn from races who had proved their inferiority.

78. It is evident from the stipulations in the sales of estates which involved the transfer of slaves or serfs that this subject population were under obligations to the local authority of the district. Whatever the position of the seller, the buyer expected the insertion of a clause exempting his purchase from the claims of the *šaknu*, the *bêl piḥâti*, the *ḥazânu* of the seller's city and also the *bêl ilki*. It is

to be noted that these officials are deemed likely to intervene to the prejudice of the purchaser, never of the seller: that they are officials, not of the buyer's town or district, but of the seller's. It seems obvious that the ground of intervention was that the sale, probably by transferring the estate and its slave population to the ownership of a citizen of another state or city, in some way infringed on the rights of these officials. Further indication of what this *ilku*, or service due, may have been, is also derivable from the functions of other officials named. They are military, as the *ràb kiṣir* and the *ràb ḫanšâ*, the former 'over the levy,' the latter over the Assyrian military unit, 'captain of fifty.' This points to the existence of an obligation on the part of each landowner to furnish a certain quota to the army. With the transfer of the estate, the local authorities would naturally look to the new landlord to discharge this liability. That a seller should be able to absolve his purchaser from this obligation seems strange. It shews perhaps that he remained an owner of other estates, whence he could still satisfy the claims of the local authority. Or it may be that the estate would now be reckoned part of the new owner's district and liable to his overlord. In this case, it very likely lay on the borders of the two districts, so that it might be reckoned to either according to the residence of the owner. This would lead to a revision of the border line each time that this estate changed hands to one or the other side. It may well be that this was the case. It seems probable enough that a buyer, who no doubt had his own local liabilities, would shrink from undertaking others at a distance, and the point was doubtless discussed as part of the bargain before the price was agreed to.

79. The fact remains, however we regard the validity of the stipulation, that a liability to furnish a quota to the army lay on certain estates, if not on all. We learn that the *šaknu*, as chief military governor of the city or district; the *bêl piḫâti*, as military commander of the district; the *ràb alâni*, probably as set over a union for this purpose of villages or hamlets; the *ḫazânu*, as chief civil authority of a city; and the military captains over certain battalions or squads had fixed territorial claims on the population. When therefore the king says *adki ummanatia*, 'I set in motion my forces, called out my troops,' we gather that each city, village, hamlet, or farm had its quota to furnish. The squads of fifty, being 'collected,' formed a *kiṣru*, over which the *ràb kiṣir* had command, and these collected under the *bêl piḫâti* or the *šaknu* of the district.

80. The obligation to answer this summons (*dikû*, to call out troops) was known as *dikûtu*. When a king set free (*úzakki*) an estate, which had been acquired by some great personage, whom he desired to honour, he often expressly exempted the lands from their *dikûtu*. I regard the *ilku* as a somewhat wider term, including this military service, but also probably the service due for public works. Some of these, of special local interest, are named; such as the 'repair of the ford,' 'repair' of walls, gates, ramparts, &c. In later times the plot of land called the *bît ḳaštu*, or 'bow' of land, was, as Hilprecht has shewn, *B.E.P.IX.* p. 36 *notes*, a plot of land subject both to a military requisition and a royal tax. This obligation consisted in a quota of soldiers, flour, *bâri* and other dues, varying according to the size of the plot. It appears to be an equivalent or close parallel to the *bît ešru*. Although these terms do not occur in our documents, and the name *bît ḳaštu* appears an introduction of Persian times in Babylonia, it seems to me that a very similar usage held in Assyria in the Sargonid period.

Beside these charges of local liabilities which lay on the estates, the *ḳêpu* and the *šaknu* could claim to levy on an estate a demand called the *mutûtu*. This would apparently diminish the yield of the crops. We may therefore assume it to be a right to levy supplies of forage or provisions. Whether the word refers to the keep or maintenance of soldiers is not clear.

The term *ilku* seems to have covered the furnishing to the king's household, a quota of grain or some such food material. The *dupšikku* seems to me to have denoted an obligation to render service not military but civil, as work on the public buildings. See on these points especially Winckler, *Alt. Or. Forsch.* v. p. 401 f. I am not sure whether *dikûtu* may not have also included this obligation to work on public buildings.

81. Undoubtedly, as the Empire grew, the *mandattu*, or tribute imposed upon the conquered states, rendered the king's treasury independent of the taxes or levies imposed on the home population. We find in the charters various kings freeing certain estates from their obligations. This may have been very extensively the case. In the estate sales we frequently meet with a part of the land said to be *zakû* or *zakûtu*. In view of the phrase used in the charters to express the freedom conferred, *uzakki*, 'I have set free,' we may suppose that the term *zakû* denotes land that was either so freed by charter or had in other ways become exempt from land tax. It is

not yet quite clear that this was the meaning, but the phrase *uzakki* is used in many cases where the king is endowing temples, with estates. We know from Sargon's inscriptions that he granted by written charter, *išṭuru zakûtsu*, a freedom to Ḫarran, and also to the city Aššur. This freedom was expressly an exemption from *ilki dupšikku*. That Nineveh was so free may be assumed.

Whether the other great cities were all finally in the same position we are not expressly told, but it is likely enough, since Sargon granted the same privileges as Ḫarran and Aššur enjoyed to the northern Babylonian cities which submitted to him. The exemption of certain estates by charter, the grant of others to temples, and possibly other causes gradually must have left the home provinces largely free from this type of feudal obligation. Whether the freedom from *dikûtu*, or the furnishing of troops, always came under the head of *zakûtu* is not yet clear. If so, and in a less degree even if not, this freedom must have relaxed the central authority, and by depriving the native Assyrians of their responsibilities may have directly contributed to weaken the military strength of the country. As Winckler has shewn, *l. c.* Sargon appears to have introduced a standing army or *kiṣir šarrûti*; and this consisted, at least partly, of foreigners, doubtless soldiers of fortune as well as captives. How it was maintained does not appear, but the dues from the home provinces may have been commuted for a fixed due from each homer of land that was not exempted, *zakû*.

82. The land sold is often specified as being *ina GIŠ-BAR ša X ḳa*. The *X* denotes a numeral. In most cases this numeral is nine (nos. 383, 385, 388, 413, 433, 471, 621, 622, 623, 628), but also ten occurs often (nos. 81, 83, 389, 421, 429), eight occurs once (no. 387), eight and a half once (no. 426). In these cases the expression is appended to 'so many homers of land.' The same expression is also appended to homers of wine, with nine *ḳa*; of corn, with ten *ḳa*; also nine and a half *ḳa*; and oil, also ten *ḳa*; see nos. 114, 125, 127, 128. It is also applied to corn, with nine *ḳa*; in no. 429. That the *ḳa* referred to was bronze or copper is stated in nos. 385, 413, 471, and 127. No variant to *GIŠ-BAR* ever occurs, *ina* is written with the single horizontal wedge except in no. 389, where we have apparently *ina libbi GIŠ-BAR*. That indicates something after the fashion of a price, either 'payment' or 'yield.' In no. 432 we have mention of a *GIŠ-BAR ša* (*iṣu*) *zakru* in connection with estates. In no. 481 we have part of a penalty *GIŠ-BAR-šu umallû*. One *ša* occurs as

often as the other, so there can be no question that *ša* is the preposition: *ša* however is omitted in nos. 385, 386, 426, 621. In no. 421 we have *ḳa-MEŠ*. Of this expression the numeral before *ḳa* is lost in nos. 84 and 386, and *ḳa* itself in no. 389. Finally, in no. 148 we find corn reckoned *ina GIŠ-BAR ša mât Iaudi*.

83. Various attempts have been made to get at the meaning. Professor Sayce, in *P.S.B.A.* x. p. 519, on Tel el Amarna Tablet no. XIII. A., made it to be a foreign tree. Oppert, *Z.A.* I. p. 89.

Peiser, *K.A.* 102, renders it by '*Pacht*'; which may well be the case, where it is read with *ša šatti*. In Str. *Nbd.* 556 we read *GIŠ-BAR ša ina sattukku iddini* or Str. *Nbd.* 799 *GIŠ-BAR...ša muḫḫi ešru*: we must here give it some meaning like 'tribute' or 'offering.'

Zehnpfund, *B.A.S.* I. p. 524, examined its meaning, but did not decide. He thinks that the new Babylonian contracts do not decide its pronunciation either. These suggestions lead some to restore the Assyrian equivalent in II. R. 46, 70, No. 5, to *ginû*: but of that equivalent only *gi* is left This is Meissner's suggestion, *A.B.P.* p. 101, but Muss.-Arnoldt, p. 226, points out that *GIŠ-BAR* and *ginû* occur together, as if distinct.

Oppert, *Le Droit*, p. 577, commenting on no. 471, renders *ina GIŠ-BAR ša* 9 *ḳa* by *comptés au taux de neuf cabs en cuivre l'hecte*, and in a note remarks that in Nineveh the ordinary reckoning was *six*. This does not agree with our documents, where *six* never occurs at all. He says also that at the same time there were homers of nine and a half cabs (no. 114): and that the homer of six cabs was equivalent to 60, that of ten cabs to 100 cabs of surface measure. This is all very puzzling to me, and I do not like to say it is wrong, because I am not sure what it means.

84. I think *GIŠ-BAR* means simply 'yield,' and that when a homer of land is said to be *ina GIŠ-BAR ša* 10 *ḳa êrê*, it means that the yield of that field was 10 *ḳa* of copper, not of corn, per *ḳa* of land. From this it would pass over to the sense of 'rent,' that is, the part of the yield due to the owner. This I think was a late notion. Fields were at first only temporarily leased for a sum of money and for short terms. As a closer derivative from 'yield' than 'rent,' *GIŠ-BAR* may have meant 'income from land.' When a god, or his temple and college of priests, had land endowments, the whole yield of the land would be 'income,' provided the priests could work the land. If they could not, they let it out to husbandmen and I believe the

'rent' so received was the *GIŠ-BAR* still. Such, I imagine, was the *GIŠ-BAR* referred to in *K. B.* IV. p. 39, due to Šamaš. There is however another idea to be borne in mind. The whole land of the state was the field of the god. He may have claimed *GIŠ-BAR* from every acre of it. When land is named as being of 10 *ḳa* *GIŠ-BAR*, it may mean that each homer had to pay its 10 *ḳa* to some local god. In that case the higher the *GIŠ-BAR*, the less price the land ought to fetch. This is not likely, as will be seen later. Further land of 10 *ḳa* *GIŠ-BAR* is in one case said to be *zakû*. This term means 'free' from imposts of any kind. It is therefore probable that if any such obligation did lie on the land it is not expressed by *GIŠ-BAR*. On the other hand, we do find the word *ginû* used to express a fixed income or revenue for the gods. This lends support, as far as it goes, to Meissner's suggestion above that *GIŠ-BAR* means the same as *ginû* and is sometimes at least to be so read. When therefore *GIŠ-BAR* denotes the revenue received from an estate, we may provisionally read it *ginû*. Such for example was very likely the *ginû* of *mât Iaudi*, or the 'corn rent' from Judea.

85. It may not be without significance that while *GIŠ-BAR* is used for 'corn yield,' *ŠÊ-BAR* is 'corn' in general: and, whatever the sense of the term, it was certainly closely connected on one side with land, on the other with corn. Further suggestions will be noticed in the comments on individual texts. In the times of Artaxerxes I., as Hilprecht has shewn, *B. E. P.*, IX., p. 44, the term *ilku* seems to have been used exclusively for royal taxes upon property subject to the military requisitions, while *GIŠ-BAR* was the rent paid to the person leasing or letting a field. If this were true in our case it must have been a rent reserved from the land and the land was sold subject to that reservation. It is difficult to see in whose favour the reservation was made; if there was a rent due to a god, or a rent due to the state from each homer, the facts of the case would be accounted for. The very numerous endowments of temples with land may have resulted in the sale of the land to persons subject to a ground rent reserved to the temple. Such leasehold property might be sold freely to others by the first or subsequent leaseholders, and would be in the same position as estates in England sold subject to the tithe. We might therefore say with some reason that *ina* *GIŠ-BAR* *ša* *X* *ḳa* means that the tithe on the land was *X* *ḳa* per homer. We should however be inaccurate in

using the term 'tithe' unless we knew that this *X ḳa* bore a definite numerical ratio to the yield per homer. Failing that knowledge and remembering that there was an *ešru* or tithe, I prefer to use *GIŠ-BAR* until a link to connect it with *ešru* has been found. Hilprecht reads *iṣu BAR*, which seems to me to assume that *GIŠ* is the determinative of wood; as far as I know we have no proof that *GIŠ-BAR* was a 'vegetable' product. Whether this is actually the same thing as the *barra* of Persian times does not seem clear to me. Its close connection with the yield of the land is certain. Its destination is less certain; we have both *ginû* of the gods and *ginû* of the king (see glossary).

86. It will probably occur to the reader that in a sale of land, one subject of consideration for the buyer would be the quality of the land. This would naturally be expressed by average yield. As yet we are not in a position to state definitely the area of a homer of land or its relation to the *ḳa* of land. We do not know the content of a homer of corn either in modern corn measures nor in *ḳa* of corn. I have not come across any data in our documents for determining them. We may go widely astray in using Babylonian data, ratios and absolute values may have differed in the two countries. All I can do is to put forward some tentative hypotheses and hope for future data or some acute combination to revise and settle their worth. Such tentative hypotheses may serve as working formulae for the time. Let me recall that we have already, in § 60, conjectured a homer of corn to be worth a shekel of silver. We also see from the variants in § 81 that the *ḳa* referred to in our clause is a *ḳa* of bronze or copper. The following calculations are given as an attempt to connect the *GIŠ-BAR* with average yield.

87. It will probably be obvious to the reader that if a man advanced money on the security of a field it would be on the understanding that the value of the produce was somewhere about the interest on his money, unless indeed, as is more usual in modern loans, the lender desire to take advantage of his fellow's need. This probability however is removed from the region of speculation by the express terms of the agreement. In nos. 81 and 83 we find the phrase *kûm rubie kaspi*, 'such and such lands he shall enjoy,' that is, 'in lieu of the interest of the money.' This enjoyment was for a limited period, three sowings and three fallows (?), or four, as the case might be. It was clearly only usufruct that was enjoyed.

Now let us put down the data for a comparative view. No.

81, eleven shekels were lent on security of one homer 30 *ḳa* of land *ina GIŠ-BAR ša* 10 *ḳa* for a term of three years and, in no. 83, 60 shekels are lent on security of six homers of land *ina GIŠ-BAR ša* 10 *ḳa* for eight years. It is clear that these are calculated on the same basis. The produce of one homer of land is worth the interest on 10 shekels. This, however, makes the assumption that 30 *ḳa* is a tenth of a homer in land measure. Now the interest on money was reckoned usually at 25 per cent. per month, and therefore the interest on 10 shekels is 30 shekels per annum. It is clear that in these agricultural loans the farmer of those days could afford to pay 300 per cent.: that is his average yield was more than that on his seed, making allowance for maintenance and labour. Now how can we make out the value of a homer of land something like 30 shekels per annum? The answer is swift and obvious: 300 *ḳa* of land, each yielding corn worth 10 *ḳa* of copper, give us 3000 *ḳa* of copper. Now I suggest a *ḳa* in copper, is in weight what a shekel is in silver, and the value of silver was roughly one hundred times that of copper. So to turn from the copper *ḳa* to the silver shekel, we merely divide by 100: and the result is 30 shekels of silver.

Here then our assumptions are:

(1) One homer of land contains 300 *ḳa* of land.

(2) *GIŠ-BAR* means 'yield.' *Ina GIŠ-BAR ša* 10 *ḳa* means that each *ḳa* of land yields corn worth 10 *ḳa* in copper.

(3) Silver is worth one hundred times its equivalent weight in copper.

(4) A copper *ḳa* weighs the same as a silver shekel.

If these assumptions settle the questions raised by a loan of shekels on security of land: they are not thereby proved. They may conceivably be modified so as to still agree with the cuneiform data.

88. Let us now consider the leases. We find in no. 622, one homer of land let for 10 shekels of silver, in no. 624, three homers for 30 shekels. In the first case, *GIŠ-BAR* is only 8 *ḳa*. It certainly looks as if in these two cases the money was paid in a lump sum and the amount fixed, as above, by considering what would be the worth of the produce of a homer of the land. It is not easy in such cases to distinguish between the loan of the money on security of the land and the lease of the land for a lump sum paid at the beginning of the occupancy. In the leases however there is no

mention of a return of the money, and the formula is that of a sale for a term of years.

We have, in no. 629, three homers for thirty-four shekels, the *GIŠ-BAR* being now 10 *ḳa*. This is on the same scale; if three homers at 9 *ḳa* of bronze per *ḳa* of land fetch 30 shekels, when the yield is 10 *ḳa* or one ninth more, the sum 34 shekels is nearly exact. It will be noted that, on the above suppositions, money was advanced on land whose *GIŠ-BAR* was 10 *ḳa* to the amount for which it could have been leased if it was only yielding 9 *ḳa*. This seems reasonable enough.

On the other hand in nos. 621, 623, 625, 628 we seem to have a proper rent: three homers of land for twelve shekels, twenty homers for one mina, apparently five hundred fields for fourteen minas, two homers twelve *ḳa* for twelve shekels, the *GIŠ-BAR* being nine *ḳa* in each case. The rent seems to have run between three and four shekels per homer. As the produce was worth ten shekels per annum we have some idea of what relation rent bore to produce. It is only fair to point out that the land in some of these cases was of mixed character, including plantations, wells or water-holes, courts or other farm buildings.

I freely admit the above calculations are somewhat hazardous, but they seem to throw some light on a very obscure term. That a field was worth more when its *GIŠ-BAR* was ten *ḳa* than when it was only nine *ḳa*, seems already probable.

Unfortunately we have not data for comparing the prices of simple fields of different *GIŠ-BAR*. The prices are complicated by the presence of other things, plantations etc. and especially slaves or serfs.

In no. 383 we find thirty-five homers sold for five minas of silver: in no. 413 it seems that seven homers were sold for seventy-two minas of copper. In no. 385 we have six homers of land sold for 36 homers of corn. In all these cases the *GIŠ-BAR* is 9 *ḳa*. The price of this sort of land is about the average price, eight or nine shekels per homer. In the first case it comes out at $8\frac{4}{7}$, in the second about $6\frac{1}{6}$. We see that land was to be bought, say for eight shekels per homer, and yielded the interest on ten shekels or thereabouts. The price paid in corn is six homers of corn per homer of land. A homer of corn must then be worth somewhere about a shekel and a third of silver.

89. Dr Oppert in "Das assyrische Landrecht," *Z. A.* XIII.

p. 254, following, discusses *GIŠ-BAR* with wonderful insight and acuteness. He regards the varying number of *ḳa* as implying so many *kabs per 'Sechstel.'* Thus when we have $9\frac{1}{2}$ *ḳa*, he means that the *Sechstel* would contain $9\frac{1}{2}$ *kabs* and the homer 95 *kabs*. Here then he uses the word *Sechstel* to mean a tenth of a homer. As he points out, we also meet with cases of 8, 9, and 10 *ḳa*; hence he constructs homers of 60, 80, 90, 95, 100 *kabs*. He further argues that the normal content of a homer in Nineveh was 120 *kabs*. That is, double of the measure usual in Babylon; just as the Assyrian mina was double the Babylonian. He adds that in Babylon in the 12th century B.C. we have the *Sechstel* for corn reckoned at 12 *kabs*, III. R. 41, 21.

When then we are told that during the siege of Babylon under Šamaš-šum-ukîn, three *kabs* cost three shekels, we see that the price was ten times its normal value. Dr Oppert further on page 256 calculates the contents of a *kab* as a cube of one third of a foot, and compares prices; with the result that he is obliged to conclude that the people were richer than we have supposed in silver and gold. I am quite unable to follow this argument. It is of great interest, but it seems to me too full of assumptions. Why was any ancient measure the cube of a third of an ell; why should it not have been an hemisphere of a half ell diameter, or, for the matter of that, any other shape?

It would be just as fascinating to remark, that if the *GIŠ-BAR* be taken to have 10 *ḳa* and 9 *GIŠ-BAR* go to the homer, or if we have 10 *GIŠ-BAR* each of 9 *ḳa*, or lastly, $9\frac{1}{2}$ *ḳa* to the *GIŠ-BAR* and $9\frac{1}{2}$ *GIŠ-BAR* to the homer, we have always 90 *ḳa* or $90\frac{1}{4}$ *ḳa* to the homer. It seems very like solemn trifling.

90. The two data from which he starts deserve more attention. In no. 113, 10 minas of silver and one hundred and twenty homers of corn are named as advanced together. He considers they are equivalents. First he considers *adu rubêšu* as meaning that the corn was advanced with this addition, perhaps of a quarter. That would bring the amount of corn up to 150 homers. It is most unlikely that, if the advance was really 150 homers, it should not be stated so. Besides the advance is made on the understanding that the interest shall be a half mina; if not repaid when due. I doubt the equivalence altogether. It seems to me both money and corn were advanced, the former to bear interest at 5 per cent., an unusually low rate, the corn as usual at 50 per cent.

91. The second case of course yielded a different result: in no. 114, thirty shekels are named with ten homers of corn. In order to make things agree, the ordinary homer should be worth two-thirds more than that of $9\frac{1}{2}$ *ḳa* or, allowing for the *adu rubêšu*, one-third more. In case we suppose the interest on the corn the same as that stated for the money in the first case we should have 126 homers worth 600 shekels in one case and ten homers worth 30 shekels in the other. There is no similarity between the supposed prices. They are both quite at variance with the above deduced probability that a homer of corn was worth a little over a shekel. It is not unlikely that a homer was originally not far from that. In later times we find that one *GUR* of corn cost a shekel.

92. Taking one homer of land as 300 *ḳa* of land, each yielding 10 *ḳa* of corn, which are each worth one *ḳa* of bronze, i.e.; one shekel weight of bronze, we have on 6 homers of land 18,000 shekels of bronze, worth 180 shekels of silver or 3 minas of silver *per annum*. Now this yield has to meet all current expenses of management and maintenance and in eight years (see no. 83) recoup one mina of silver. The interest usually charged for deferred payment of an advance is a quarter per month or 300 *per cent. per annum*. The farm therefore produced exactly what would pay three minas of silver per year. Its yield in corn therefore paid the interest on the money. There must also have been a further yield, besides the corn yield, that would enable the repayment of one mina in eight years. This looks as if the *GIŠ-BAR* was such an average rent as could be expected from the homer, not the total yield, but the profit or the proper proportion of it which a landlord would take.

93. Here I must leave these interesting questions, raised but unsolved. The reader will be prepared by them to enter into the further discussions that must arise on single cases. A further complication will be found to occur from the peculiar relations between landlord and tenant in Assyria. It may be that in the above calculations, especially with regard to the leases, we have not allowed for the landlord's contribution to the expenses of management. A perfectly clear view of this relationship has yet to be won from the scattered notices in our documents. All was clear to the scribe and the parties, but the assumptions they made are for the most part yet obscure.

94. The question of partnership must receive some attention. It must be sharply distinguished from joint-ownership. Men may

unite for the purposes of business to furnish capital jointly and to divide the profits. They may in the course of business become joint owners of property and as such may be sellers of it. In this case they appear as 'partners.' When, however, as heirs to an estate they agree to sell the property and divide the proceeds they are scarcely partners. When the bond which unites them is one not voluntarily assumed, they cannot be regarded as partners. There is nothing to prevent brothers being also partners but their joint action for the disposal of a common property is not proof of partnership. By far the greater proportion of the cases, in which more than one seller appears in our deeds of sale, are cases of joint ownership. In many cases the relationship of the sellers is stated. One may however look in vain for any hint of how the purchase money was to be divided among the sellers. It may be that this is because we only possess buyers' copies of the deed. In any case it is a presumption that we have no copies drawn up for the seller's own satisfaction, merely his copy of the deed drawn for the buyer.

95. There is, however, another possible view. The seller may really in many cases be only one, and those associated with him only consenting parties. They may not have reaped any benefit. To take a most obvious case, a lady dedicates her son to the service of Ninib in performance perhaps of a vow: no. 640. Her brothers and their sons seal the deed. Here there is no price paid, but it is clear that she had not absolute power over her son, the family had to give consent. So it seems not unlikely that when other property was sold, the family had to give consent. It does not follow that they shared the price received.

96. Something that looks much more like partnership occurs in no. 22, where two men advance a sum of money together to one and the same borrower. Nothing is stated beyond joint ownership and they may have been brothers or even merely fellow servants of some official.

A few other cases will be commented upon as they arise. When the steward of an estate advanced money or corn to two or more of the tenants or serfs, we find occasionally that one of them takes the responsibility for the party. Such for example is no. 151.

This may be considered as a sort of limited liability company, but only in a very vague way. It cannot properly be regarded as a partnership.

97. The owner of an estate probably was in a similar relation

to his serfs or tenants to that in which a manufacturer would be to his workmen on the profit-sharing system. He found the land, and often the stock and certain capital. They supplied the work. They had of their labour food and maintenance and also a remainder of profit. Even when called *ardu*, 'slave,' a man could attain some degree of wealth and apparently purchase freedom. In a sense, this also was a partnership. The full-blown institution as we know flourished in Babylonia both in early and late times. It was surely existent also in Assyria. I believe it is due to the limited and special nature of our documents that we have no more certain evidence of it.

98. In the deeds of sale and elsewhere we find stipulations inserted, calculated to protect the buyer from any attempt on the part of the seller to resume his property. It is obvious that these stipulations against any attempt to withdraw from the bargain or procure a legal annulment of it must have in some way depended upon experience. It must have been likely that such an attempt would be made. This has apparently induced Professor Oppert to entitle his article in the *Académie des inscriptions et belles-lettres*, 26 Aug. 1898, "Le Droit de Retrait Lignager à Ninive." As he points out, in the Middle Ages, the peoples of Europe recognised five kinds of *jus retractus*:—the *droit de retrait lignager* (*jus retractus gentilitii*), the right of the commune as against foreign purchasers (the German *Marklosung*), the right of the proprietors over the lands still held by the seller (*Gespilde*), the right of co-proprietors or feudal seigneurs (*Ganerbenrecht* or *Eigenthumslosung*), and lastly the right of withdrawal permitted to the neighbours of the property. These rights were usually expressly excluded, unless asserted within a short period. 'In Mesopotamia, the ancient rule seems to have been *le droit de suite*, the right of property inherent in the first proprietor.'

99. Dr Oppert appears to see this in the appeal to the gods and the king, by which the agreement was rendered inviolable in the old Babylonian times. I suppose that this means, that Dr Oppert regards the gods or the king as 'first proprietor.' In that case one would expect the gods named among those likely to attempt to set aside the agreement, and some condition as to time &c. would be laid down to limit their exercising this right. I am not aware of any such clause appearing in old or new documents. The gods appear to be appealed to, solely as guardians of the right. The attempt to withdraw from the agreement is treated as a wrong, which they will

surely avenge. The king is invoked as their earthly representative and the fount of justice.

Dr Oppert then comes down to the new Babylonian documents of the 8th century and later. Here he says the right of withdrawal was limited to the caste or tribe and the parents, at any rate to the communes and religious corporations. It was also confined to the resumption of *immeubles* and had ceased to exist for *meubles*. He tries to shew that by the eviction of the purchaser it was possible to resume possession at the price of a large fine, and that at any rate the resumption of estate was not regarded as impossible.

He then concludes that this right of the *retrait lignager* was anterior in date to all other legislations in Mesopotamia and once reigned supreme. He regards it as probably of Turanian origin and thinks it broke down under Semitic influence. Under its early Mesopotamian form, as in its Germanic, it was repugnant to the ideas of Jews and Arabs, Greeks and Romans.

He concludes with this significant sentence—'cette prérogative imprescriptible du propriétaire primordial, consacrée par d'antiques coutumes religieuses, devait surtout être repoussée par un peuple qui, devenu conquérant, transplantait les nations vaincues et ne se souciait pas de leurs droits acquis.'

100. Now the pleas which those who attempt to upset the agreement would use are given. They are, not that the seller had an incomplete right to alienate his property and that the proper consents had not been obtained, but just the usual dishonest pretences that a man would make who imagined the buyer could not produce proof of his title. They are merely 'the full price was not paid and the property was not sold.' Such are surely not the pleas that the representatives of a commune, a guild, or a tribe would put in. The 'primordial proprietor' contemplated, if any, is the actual seller. No right of his is excluded, the scribe assumes it would be a gross injustice to attempt to recover his property, even going so far as to call his plea a *lâ dînu*, a 'no plea.'

On the other hand, there does seem evidence that the local governors, the *šaknu*, the *bêl piḫâti*, the *ḫazânu*, and other officials might have a right to interfere, on the ground of the obligations known as *ilku*, *dupsikku*, *dikûtu* &c. As I take it, these rights are not denied, nor ignored, but the seller takes the responsibility for them. The buyer stipulates that they shall not fall on him. The seller must, therefore, either possess land already exempted from

such obligations, or now undertake to guarantee the buyer against them.

101. I see no sign in these documents that the buyer expected any primordial proprietor behind the seller to intervene. I think that in some cases that right did still exist and was exercised, and I believe, where it existed, the buyer could get no guarantee against it. The right of the tribe or clan over land, was surely not repugnant to Jewish ideas and the resumption by the dispossessed proprietor in the Jubilee year, however ancient a right, or however post-exilic, can hardly be a Turanian custom adopted into the Jewish code.

I think that Dr Oppert's notion of a right under certain circumstances to resume possession is a fair representation of the truth: but I do not think it is to be found where he finds it. The example he gives, no. 213, as the sale of a woman under such conditions, seems to me to be in no sense an illustration either of this right being exercised or of the conditions under which it could be in force. I believe that the scribe never supposed that the seller would plead any right to have his slave back, only the non-payment of the price or a dishonest denial of having agreed to sell.

102. In the case of land it was different. Except when land was freed from such obligations by charter, it was probably always subject to certain obligations. I think each district had to furnish a proportionate quota of personal service to the army and public works, and it is also likely that it could be called on to furnish supplies for public works and provisions for the army. How far the Assyrian home provinces were relieved from these material levies by the tribute drawn from conquered lands is not clear. There is no trace in our documents of any tithe, payable to the king, or to the gods. As far as I can see, the temples were endowed with lands and were owners of property just like ordinary landlords. No mention is made in any of our documents of any *ešru* due from land to a temple. On the other hand, in no. 626 a we appear to have an incomplete list of the lands held by some temple (?) with a notice of the dates or periods at which they came into the possession of this temple. Further, in no. 660 a we find Sargon granting certain estates to Šulmušarri &c. and their heirs for ever, on condition of a certain yearly payment to Ašur which was to be his *ginû*. In K 3042 we have also a list of sources of income of a temple, stating from whom they were due and in some cases the original donors. We continually meet with the lands or other

estates belonging to the gods. In no. 363 we have an orchard or plantation, *kirû*, which belonged to the *ginê* of Ašur and Bêlit. In no. 328, one of the witnesses, Nabû-nâṣir, is said to be over the *ginû* of some god. In no. 48 the money lent was from the *ginû* of Ašur. In no. 760 we have a quantity of food and drink which is transferred from the *ginû* of the king to that of a god.

103. It is not clear that the lands were always held as grants from the king subject to certain obligations. If we could admit the population to be Assyrian throughout, these obligations may have grown up as communal or tribal obligations. I rather incline to think that the Assyrians in the country parts were an aristocracy, and the representatives of a conquering overlord. It is therefore likely enough that all lands were held as military feofs, and in lieu of rent to the king were bound to furnish men and supplies. Requisitions might be made on crops: and in later times a variety of royal dues appear to be levied on lands.

Whether these were occasional or regular does not appear from our documents. There is sufficient to shew their nature. They were state dues and the exaction of them by the proper officials can hardly be regarded as a reservation of a right on the part of a primordial proprietor to resume possession.

104. As is well known, see Oppert's *La Condition des Esclaves*, p. 1, the free population of the Babylonian states were divided into clans, *gentes*, φυλαί, who were very much like castes or guilds also. The clans proper are named by their ancestors, mârê Egibi, sons of Egibi &c. The guilds are also clearly implied by the name given, e.g., *X apil Y apil mandidi*. The name of these family groups is *kîmtu*, *IM-RI-A*, and it is clear that the whole *kîmtu* possessed a right of intervention in alienations of property. Either male or female representatives might exercise this right. It had to be expressly waived in making a satisfactory agreement as to a sale. A member of a clan was called a *mâr-bânû*, 'a son of the ancestor.' The *status* of one who was thus *ingenuus* is expressly called the *mâr-bânûtu*, thus proving its recognition as a reality. When a master wished to make a 'freedman' of a slave, he furnished him with letters of *mâr-bânûti*, thus placing him as a member of the tribe of his master. This process sometimes preceded the adoption of the slave as a son.

105. The same traces of tribal solidarity do not appear in our documents. It is not likely that the whole Assyrian people were of one tribe. The existence of the Eponyms points as many have

already remarked, to an early confederacy of cities. The Eponym was very likely a survival of the time when each city of the confederacy nominated its own chief magistrate to rule over them all. The earlier traces of a fixed order in the list of cities seems to imply this. Even the name of the office *limu* is possibly the same as the *li-i-mu*, which II. R. 29, 74 gives as a synonym of *kîmtu*.

The expression *mâr-bânû* does not occur in our documents, nor are there any traces of great clans; but this may be due to their special character. We have no special reference anywhere to adoption, but the name Ardia-arkia 'my slave after me' surely points to the practice of leaving an inheritance to a slave. Still even that name may not be actually Assyrian.

Closely connected with the existence of clans is the family cult of one particular god. It was possible that a king should name his sons after the national deity, and amongst them we expect a predominance of names compounded with Ašur, Sin or Ištar. In other families we find one god usually adhered to, though of course there are many exceptions.

106. The position in which women found themselves in Assyria in the 7th century B.C. was one of considerable freedom. The distinguished ladies who acted as governors of certain cities and districts bore the title of *šakintu*, feminine of *šaknu*. As the form *šaknu* seems to indicate this officer was one 'placed' in his position. While the officers called *bêl piḫâti* were perhaps as much revenue officers as administrators and certainly military in their functions to a considerable extent, and the *ḫazânu* was the chief civil magistrate, and therefore in contrast to these former probably a native of the city, the *šaknu* was clearly the 'official resident' representing the central authority. It seems not unlikely that the *šakintu* was also the local representative of the royal power. There is some reason to think she was a royal princess, if not a wife of the king's. She certainly had a considerable amount of freedom, buying and selling on her own account and having a considerable retinue of servants: see further in the chapter on the officials.

To a certain extent this position of the *šakintu* may have been directly due to her royal birth or marriage, as most certainly the power wielded by the Queen Mother was due to her connection with the reigning monarch. There are however considerable indications that women entered freely into business relations in the absence of a male representative. Wives do not appear pleading apart from

their husbands. In the absence of her master and natural protector, we find a female slave appearing by an agent to answer a claim made on her against her master's estate (no. 166). This certainly looks as if she had no *locus standi* in the court of justice. On the other hand her servile condition may have been the disqualification. We find women recognised as in the possession of estates and acting as *irrišu* or gardeners. They appear as representatives of their husbands (doubtless in their absence) acting as sellers.

CHAPTER II.

THE OFFICIALS.

107. As Dr Peiser has already pointed out in his admirable *Skizze der Babylonische Gesellschaft*, p. 7, the officials of the Assyrian or Babylonian State group themselves in three directions; the Civil Service officials, who are concerned with the internal administration; the Foreign Office, who deal with the relations between the home government and its neighbours or tribute states; and the War officials, who conduct the military operations against the enemy, but also serve as governors of conquered cities and districts. There is a yellow tablet of unbaked clay in the British Museum, inscribed in Assyrian script and containing about seven lines to the inch, which gave the titles of about two hundred of these offices. They are distinctly Assyrian and arranged for the most part in order of rank. They are also divided into three columns, but the three departments recognised above are not clearly separated. A great many of these officials are named in our documents or known from the historical inscriptions. This tablet, K 4395, to which Sm 56 is now joined, was published, II. R 31 no. 5, and has already been widely discussed. A full transliteration is given in Oppert's *Doc. Jur.*, p. 71 ff., and the bibliography will be found in the Catalogue, p. 627.

108. The order given in this tablet will be followed in the remarks I have to make upon the officials, as I believe the order is that of official precedence to a great extent, though not entirely. It is difficult to believe, for example, that the various handicrafts had a real order of precedence. Still it is not improbable that some were more honourable than others. They were very likely, more or less, in the hands of a guild of craftsmen, who in the larger cities all inhabited the same quarter and gave their own name to it. Thus in Nineveh we have the potters' quarter, the goldsmiths' quarter, the gardeners' quarter, &c.

The existence of such guilds must have won for them a distinct status, and, in such a contentious community as the Assyrian people, some order of precedence would certainly have to be settled by law or custom, to avoid strife. It seems likely that the president or chief craftsman of such a guild would attain a position of great weight, and I believe we have some traces of this. The union of agriculturists, or *irrišê*, would be one of the most powerful, and I believe that, if not the king himself, at least the Crown Prince was content to accept the presidency of this guild. At any rate, we find in Harper's *Assyrian and Babylonian Letters*, p. 374, that Adadi-šum-uṣur and Arad-Ea, two high-placed officials and frequent correspondents of the king's, write to the chief *irrišu* in the same terms of deferential respect as they employ to Royalty. The business on which they write is obscure, being concerned with some sacerdotal or augural duties, but certainly not such as concerned crops or lands. Nor is this a single instance: we have Adadi-šum-uṣur writing to the same official, *H. A. B. L.*, p. 5, and again, with Marduk-šakin-šum, p. 14. So Ištar-šum-ereš writes to the chief *irrišu*, p. 36. The five augurs Nabû-zêr-ukîn, Adadi-šum-uṣur, Nabû-šum-iddin, Arad-Ea and Ištar-šum-ereš write to him, p. 338; again Adadi-nâṣir writes to him, p. 179, and finally Nabû-zêr-uṣur writes to him, p. 228. In the latter case the writer sends news of public affairs in a way that tells strongly for the theory that the chief *irrišu* is either the king himself or his vizier. On the whole, it seems to me far better to suppose that the king had accepted the presidency of the guild of agriculturists; or, what perhaps came to the same thing, chose to be addressed as 'Chief Irrigator,' as in some way patron of the craft; than to imagine a 'president' of a 'board of Agriculture,' or a mere 'head gardener,' taking such rank and responsibility.

109. In the discussion of the various offices I do not intend here to refer to all the passages in which the office is named, either in our documents or other inscriptions; merely to set out my conclusions from what I have noticed and the reasons for them. Dr Winckler, in his invaluable *Geschichte Babyloniens und Assyriens*, p. 209 onwards, gives a most useful general account of the Assyrian society as a military power. Military it was to the core, even the civil servants had most of them a military side to their office. It would be too much to say that every Assyrian was a soldier, but at one time that was probably nearly true. Even the scribes seem to have gone to the wars, if not as actual combatants, yet as eye-witnesses

and essentially part of the expedition. Certainly we find from the letters that the same set of officials, usually occurring as witnesses to our documents, were also actively engaged in the movement of troops. The most frequently named official of the king's, his *mukîl apâti*, who seems to have been chiefly occupied in buying slaves, is properly the king's 'chariot-driver.' One of the most commonly occurring officials, the *šalšu*, is most probably originally the 'third man,' or weapon bearer, in the chariot. The *ràb kiṣir*, who is certainly a military officer, a sort of colonel of a territorial regiment, transacts all sorts of business in our contracts. The *ràb ḫanša*, properly 'captain of fifty,' that is, of fifty archers and fifty soldiers, armed with shield and spear, often appears in civil life. Something very like conscription lay heavy on the land. All slaves were liable to be drawn for war, unless their exemption had been secured in some way, probably by a fee in lieu of service. Their masters were called on to serve as officers. Gradually exemptions were granted wholesale to favoured cities, districts or estates. Lands were held subject to the obligation to furnish 'a bow,' probably an archer and his associated spearman. Lands in the conquered provinces were held on condition of garrison or guard duty. Requisitions could be made on fields for their crops to serve as food for the troops and fodder for their horses. As conquest filled Assyria with captive slaves and deported citizens, the Assyrian army was doubtless more and more a composite body, and probably at the last was merely officered by pure Assyrians. It is outside my purpose to work out such questions as the Assyrian military system raises. Reference may be made to Captain D. A. Billerbeck's summary in *Der Untergang Nineveh's: B. A. S.* III. p. 166 ff.

The Tartan.

110. The list, K 4395, commences with the Tartan: but distinguishes two grades of the officials bearing this title: the *turtânu imni*, or 'tartan of the right,' and *tartânu šumêli*, the 'tartan of the left.' The latter is marked, as the lower office, by being placed second. The significance of the terms 'right' and 'left' doubtless is, that on state occasions, these officers stood at the right and left hand of the seated monarch's throne. All the historical references point to the Tartan as being the highest military officer, the 'commander in chief.' The title is familiar, from the Biblical accounts in 2 Kings xviii. 17 and Is. xx. 1.

In the various Eponym Lists, the Tartan occupies the next place to the king and as a consequence we can trace back the holders of this office to very early times. Assuming that the rule holds good from the first, we reckon that Taklak-ana-bêlia B.C. 888, Ašur-iddin B.C. 882, Ašur-bêl-kainni B.C. 857, Danân-Ašur B.C. 827 and Jaḥalu B.C. 822 were Tartans. Then the list, cf. II. R. 52, tells us explicitly that in B.C. 809, Nergal-ilai; in B.C. 780 Šamši-ilu; in B.C. 770 Šamši-ilu; in B.C. 752, Šamši-ilu; and in B.C. 742, Nabû-daninani were Tartans. There is some reason to suppose that Ašur-iṣka-danin, the Eponym of B.C. 720, was Tartan; for K 998 names Ašur-iṣ... as a Tartan. Against this is the fact that he precedes Sargon, instead of following him, as usual. In B.C. 686 Bêlêmurâni was Tartan. The Eponym Bêlna'id was Tartan, and I believe G. Smith is correct in putting him in B.C. 663. Subsequently, Ṣalmu-šarr-iḳbi was Tartan of Kummuḥ and *tartânu šanû*. That this title, 'second tartan,' is the same as *tartânu šumêli* seems very likely, but is not absolutely certain. There is no reason, however, to assume that no other men held this office in the intervals. Of the above-named Tartans, Nabû-daninâni probably, Bêlêmurâni and Bêlna'id certainly, are mentioned in our documents. Besides these Abda' appears to be a Tartan in B.C. 694, no. 281: and in B.C. 668 (?) Marlarim is called Tartan of Kumuḥi. Whether this is really the same Eponymy as that in which Marlarim was *šaknu* of Kumuḥi is not absolutely certain, though very probable.

Like other great officials, the Tartan doubtless had a large household: though only his *ḳêpu* is named, in no. 50.

The spellings of this title given in our documents are *tartanu*, formerly read *šiltanu*, *turtanu*, *turtannu*, *turtan* and (*tar*)-*ta-a-nu*.

A number of other Tartans are named, outside our documents, whose dates are more or less uncertain. In the last days of Sargon, when troubles arose in Armenia, consequent on the invasion of the Gimirrai, Kaḳḳadânu appears to have been an Assyrian Tartan; but whether acting against the Armenians; or, with them, against the Gimirrai, is uncertain. Urṣinê is another Tartan, mentioned in the correspondence of the time, probably an Armenian general: see K 181 and K 194, *H. A. B. L.*, pp. 194 and 139. The title of Tartan is also given, even to the commanders of foreign armies, as to Sib'e, the Tartan Muṣurai; Khors. 25.

A second tartan, or 'tartan of the left,' does not appear historically before the Post Canon period. Hence we may perhaps ascribe the list K 4395 to a late date.

The Nâgir êkalli.

111. This official occupied the second place in rank, below the king, always following the Tartan, in the Canon Lists. His omission from the list K 4395, at this place, seems to have been due to his office having been supplanted by, or absorbed in, that of the second Tartan. The reading of this title is certain, see Del. *H. W. B.*, p. 447b. The sign *MIR*, of which *nâgiru* is compounded with *KAS*, is given in II. R 24, 58 as meaning *ridû*; *UKU-UŠ=ridû ša ṣâbê*, 'driver of people.' The *ṣâbê* were usually either 'soldiers' or 'labourers.' As *KAS*, read *ḫarrânu*, means 'road,' and also has the idea of 'hire'; we may feel sure that the *nâgiru* had to do with 'hired labourers' and perhaps also with the construction of 'roads.' In IV. R 48, 25a, he is associated with the management of the *ilku*, or 'dues' from the people: also with the *šisîtu*, or 'obligation' to furnish men for the army. As the Empire grew, and the services rendered by the home population were replaced by the tribute of conquered provinces and the enlistment of foreign troops, the office of the *nâgiru* appears to have become more distinctly military: cf. K 823 in Del. *H. W. B. l.c.* From Rm II. 2, *H. A. B. L.*, p. 430, we may conclude that the *nâgir êkalli*, to whom that letter was addressed, concerned himself with the affairs in Armenia, probably at the end of Sargon's reign and during his absence at Babylon. Further, on K 485, Ardi-Sin, evidently about the same date, writes to the *nâgir êkalli* on these Armenian troubles; *H. A. B. L.*, p. 101 f.

Assuming the same order of official rank to have been observed in the Eponym Canon in earlier times, we may conclude this office to have been borne, in B.C. 887, by Abu-ilai, in B.C. 881 by Simutti-Aku, in B.C. 856 by Ašurbaniai-uṣur, in B.C. 826 by the same, in B.C. 821 by Bêldanan, in B.C. 808 by the same, in B.C. 778 by Bêl-lîšir, in B.C. 751 by Marduk-šallimâni, and in B.C. 741 by Bêl-Ḫarran-bêl-uṣur. In the Sargonid period, the office does not appear among the Eponyms. The office did not completely disappear, however, for in B.C. 682 we find on no. 215 that Ṣabânu was *nâgiru* and witness. Here the same ideogram is used, but there is no *êkalli*. Consequently we may have to do with a slightly different office. In our list, K 4395, Col. III. 14, it is placed after the *sartênu*. Whether this implies that some of the old functions of the *nâgir êkalli* had gone over to a specialised office, is not easy to decide. It is, however, another argument for the late date of K 4395.

In the third edition of his *Assyrische Lesestücke*, no. 273, Prof. Delitzsch gave *nâgiru*, as a reading for the sign *NÊR*, Brünnow's no. 10146. He does not, however, give it under *nâgiru*, in *H. W. B.*, p. 447b. The title *NÊR-mâti* occurs on K 4729, in close connection with the Tartan and the *ràb-BI-LUL*, as receiving lands, for the endowment of his office (?). The same title is given to a witness in no. 485, where it is preceded by the *amêl ràb DAN-DAN*. The term *mâti* is certainly equivalent to *êkalli*, see § 207, so that if *NÊR* really be the same as *nâgiru*, *NÊR mâti* is the same as *nâgiru êkalli*. The *amêl NÊR ê-kalli* is named on 82—5—22, 99, *H. A. B. L.*, p. 386, after the Tartan and before the *ràb BI-LUL*. This puts him in the same position as the *nâgir êkalli* takes in the Eponym lists. On K 4395, III. 15, this title follows *nâgir êkalli* and is therefore probably a synonym.

The simpler title *amêl NÊR*, without *mâti*, is borne on no. 446, R 11, by Adadi-bulliṭ, R 12 by Aširê, and R 19 by Šeru-uṣur. The title *amêl NÊR* also occurs on K 1179.

The Ràb BI-LUL.

112. The reading of this title is still uncertain. That the title is not entirely ideographic is certain from the fact that there was also an *amêl BI-LUL*. Hence the title must be read *ràb BI-LUL*, that is 'chief of the class denoted by *amêl BI-LUL*.' How we should read *BI-LUL*, I do not know. There are some good reasons for supposing that *amêl LUL* can be read *zammeru*. This does not show that *amêl BI-LUL* could also be read *zammeru*. It is of course impossible to take *bi* as a phonetic complement to *ràb*, as the simple title is *BI-LUL* and not *LUL*. Hence the reading of the above title, in *K. B.* I. p. 46, l. 90, as *rab-bi ṣammírûti* is entirely without support. For the reading of *amêl LUL*, see *zammeru*, § 192, and *šatâm*, § 192.

The list K 4395, I. 3, puts this office next to the 'Tartan of the left.' This high rank is fully supported by the old custom of the Eponym Lists, which nearly always put the *ràb-BI-LUL* next the *nâgir êkalli*. The earliest mention of this office is in the date of Tiglath-Pileser I's prism, I. R p. 16; about B.C. 1100. The holder of the title then was Ina-ilia-allak. As, in the usual order of Eponyms, this official marked the fourth year of a reign; and as the prism certainly narrates events long after that year, we may be sure

that this king reigned during a complete cycle of Eponyms and at least four more years. Assuming that in each reign the third name after the king's belongs to a *ràb BI-LUL*, we conclude that in B.C. 886, Ilumilki; in B.C. 880, Ša-AN-MA-damḳa; in B.C. 855, Abi-ina-êkalli-lîlbur; in B.C. 825, Iaḥalu; in B.C. 807, Ṣil-Bêl; in B.C. 779, Marduk-rîmâni (here he preceded the *nâgir êkalli*); in B.C. 750, Bêl-danan; in B.C. 740, Nabû-eṭirâni; in B.C. 678, Nergal-šarr-uṣur; and in Post Canon times, Ašur-garûa-nîri; bore this title. The name being partly ideographic, it may well be that other holders of the office are named, in a way that we do not now recognise. Thus the order of the officials on no. 485 suggests that the *ràb DAN-DAN* is the same official as the *ràb BI-LUL* and other conjectures will be noted later; see §§ 113, 131, 192. It is possible that on no. 528, Buluṭ-uṣur may be the name of an Eponym, who perhaps bore this office, but at what period is quite uncertain.

Like other great officials, the *ràb BI-LUL* had doubtless an extensive household. In no. 160, his *ràb ḪAR-BI* is named, also possibly on K 3042, see § 206. In no. 330, his *šalšu*; and in no. 416, his servant; are referred to.

He was in some capacity attached to the service of the gods, for on no. 640 we have a *ràb BI-LUL* of Ninip.

He was one of the great officials to whom a forfeit was paid, as a penalty for breach of contract.

That his office was endowed seems likely, from K 4729, where certain lands are said to be assigned to the *ràb BI-LUL*.

The simpler title *amêl BI-LUL* occurs in our documents several times. In no. 382, we find Išdi-Ištar, a witness, called the *BI-LUL* of the *sukallu*; in no. 464, Aḳru is said to be a *BI-LUL*; in no. 238, the *BI-LUL* seems to have had a *mukîl appâti*; cf. no. 240, 8; in no. 247, his servant is named. On K 93, l. 16, Zêrûti is said to be a *BI-LUL* of Bêlit-Bâbili. Some of these references suggest that *BI-LUL* may be used as an abbreviation of *ràb BI-LUL*. A comparison of 82-5-22, 112 and 83-1-18, 399, which seem to be duplicates, suggests that *BI-LUL* is the same thing as *SE-GAR*, see § 114: also that *ràb-BI-LUL* is the same as *LUL-MEŠ*, see § 192. On the tablet 82-3-23, 9, a list of women, we find mention of a female *BI-LUL*. This suggests a comparison of *nartu* the feminine of *nâru*; see § 192.

The list of officials in Rm. 619, Catalogue p. 1628, gives next to the *amêl ša pani êkalli*, the title *amêl ràb BI-ŠÚ-tap-pi êkalli*. As

LUL is written *ŠU-TAP*, we may have here a phonetic reading for *BI-LUL*, *kaššu tappi*: compare the *amêl kaši* in § 203. We may, however, have here quite a different official. As *LUL* can also be read *LUP*, we may have to read *BI-lup-pi*. Further *šutappu* is Assyrian for 'a companion.'

The next two titles on K 4395, 1. 4, 5, appear to be written ideographically. The first is given in II. R 31 as *amêl ŠÚ-ŠU-GAB*. A comparison of Sm 61, 6, suggested to Professor Delitzsch, *H. W. B.* p. 685 a, that for *ŠU* we should read *ḲA*; the term being then an ideogram for *šaḳû*. It is certain that *ŠU* is written with its slant wedge rather high and to the left, but the scribe seems to have omitted the horizontal wedge of *ḲA*. The second title is written *amêl ŠÚ-GAB*. Perhaps this is connected with *ŠÚ-GAB* = *ḳâtu*, compare the title *amêl ḳâtâ*, *bêl ḳâtâti*, &c. in § 187 and § 208.

The ràb MU.

113. On K 4395, 1. 6 the next officer named is the *ràb MU*. This title does not occur in the early Eponym lists. I know of no certain explanation of its meaning[1]. In II. R 57, 73 c, the god Ninip is called *ràb-MU*. We may perhaps take *MU* here as *zikâru* in the sense of a 'servant,' or 'slave'; so Delitzsch and Zehnpfund, *B. A. S.* 1. 533; or we may read *ṣâbu*, 'official.' Then the *ràb MU* would be the same in sense as the *nâgir êkalli*. Perhaps it is the case that all the three titles given in succession, on K 4395, namely, *amêl ŠÚ-ŠU-GAB*, *amêl ŠÚ-GAB*, *amêl ràb-MU* are only variants to *nâgir êkalli*; and all mean the same, an 'overseer of palace servants.'

Another term, the *amêl ràb MU-GI*, occurs in no. 24, 5; where his *rakbu* is named. The *ràb MU* 'of the king's son' is named, in no. 587. Sailu, a Post Canon Eponym, was a *ràb-MU*; so was Ṣagabbu, the Eponym of B.C. 648. All these places are consistent with the assumption that this is the Sargonid form for the older *nâgir êkalli*. A *ràb MU* is also named on K 3042, probably of Sennacherib's reign.

The next title on K 4395, 1. 7, is *amêl MU*, which is perhaps to be read *zikâru*, 'servant'; specially 'domestic' or 'house servant':

[1] Since this section was written, Professor H. Zimmern has shewn that *amêl MU* is to be read *nuḫatimmi*, and means 'a baker.' See *Z. D. M. G.* 53, p. 115 ff., and the notes on no. 587, later.

but may be a variant of the last. Also this *amêl MU* occurs in our documents. For example, on no. 368 R 10, we find Šulmu-bêl-lašme, an *amêl MU*, and witness in B.C. 679. The next witness is an *amêl SE-GAR*, which is part of the next title in K 4395 where we have *ràb SE-GAR*. Šulmu-bêl-lašme has the title, *amêl MU*, already in B.C. 686, on no. 453, again on no. 588, and K 1359, II. 37, K 8143. Later, as Eponym, if the same person, he is *šaknu* of Dûrili. Hence the *amêl MU* is probably of lower rank than a *šaknu*: but the *MU* is placed on K 4395 above the *ràb šaḳê*. On no. 27, we find Sin-mât-êpuš, in B.C. 667; and on no. 273, Sin-utaḳḳin in this office.

It seems probable that *amêl MU* is a name for 'servant,' of a superior order to the *ardu* or 'slave': cf. the *amêl MU-bîti* later, § 175. Hence *ràb MU* is followed by *amêl MU* to shew that a class existed of which he was *ràb*: as later the *amêl ràb šaḳê* is followed by the *šaḳê* of whom he is *ràb*. On 82-5-22, 112 we read of 400 *amêl MU-MEŠ* together. Whether *mu* is really phonetic is not easy to decide, but the *gi* appears to be so, for K 653, *H.A.B.L.* p. 149, 15, speaks of an *amêl ràb mu-gu*: compare K 519, R 3, *H.A.B.L.* p. 97. On Rm. 619, Col. III, l. 14, we have a *ràb mugi ša narkabti* followed by a *ràb mugi ša biṭḫalli*. S. A. Smith, *Ašurb.* II. 63, has a word *mu-ga*, which he renders *Fürst*.

The suggestion has been made by Mr T. G. Pinches, or S. A. Smith, *Ašurb.* II. 63, that the *ràb-MU-GI* is the prototype of the Biblical Rab-mag, in Jer. xxxix, 3 and 13. This title had also been affiliated by Sir H. Rawlinson to the Babylonian title *rabû IM-GA*. Neither has anything to do with Magi, which is Magušu on the Behistun Inscriptions. The *MU-GI* and *IM-GA* may be connected: but it is not likely, then, that *ràb MU* is the same as *ràb MU-GI*. On Rm. 619 the *ràb mugi* ranks below the *ràb urâti*.

The ràb SE-GAR.

114. This is the next title on the list K 4395, I. 8. Whether it is entirely distinct from the preceding or a variant of the following, *ràb šaḳê*, I cannot decide. The latter was certainly a high office: but so are all the preceding offices. How it was read I do not know, unless perhaps *ràb akâli nadâni*, a sort of 'chief baker,' or 'chief cook:' see Zimmern *Z. D. M. G.* 53, p. 115 and notes on no. 364, later. Brünnow does not give it, but II. R 30, 16 a suggests that one

of the values of *SE*, perhaps read *SIG*, is *šaḳû*. If so here, the connection with *ràb šaḳê* may be close. We find this official's name in no. 464, where three servants of his are witnesses.

The lower form *amêl SE-GAR* occurs in nos. 364 and 588, where in each case it follows *amêl MU*, as if an inferior office. On 83-1-18, 347, line 4, Gabbu-amûr the *amêl SE-GAR* follows the *ràb baṭḳi* and precedes the *ràb ŠA-ŠIT*, cf. § 134. On 82-5-22, 112 at least 400 of these officials are named together. On K 3502 the *amêl SE-GAR*, *amêl PIN* and *amêl NU-IS-SAR* are grouped together.

An *amêl SE-SA*, or possibly *amêl ELTEK* Brünnow's no. 4445, occurs in no. 618. Whether we are to connect with the above or, as I think better, with *ramâku*, is not certain. The *ramḳu* was a priest as 'the washed' or 'sprinkled,' see Del. *H. W. B.* p. 623 b. Perhaps the plant *uḫulu* with same ideogram is = 'hyssop'; cf. Del. *H. W. B.* p. 43 b: and § 126 below.

The ràb šaḳê.

This officer is placed next in K 4395, 1. 9. He has long been identified with the Rabshakeh of 2 Kings xviii, xix, and Isaiah xxxvi and xxxvii. The title is given somewhat variously as *ràb-ŠAK*, *ràb ŠAK-MEŠ*, *ràb-šak-e*. I imagine that the next title on K 4395, which reads *amêl ŠAK-MES* is not meant to be a variant. This must be for *amêl šaḳê*, there is no explanation otherwise of the plural form. Whether this *ŠAK-MES* is the plural of *šaḳu*, used in the sense of 'chiefs,' or whether the ideogram goes back to the old Babylonian use of *ŠAG* to denote a 'slave,' does not seem clear. Delitzsch, *H. W. B.* p. 685 a, considers *šaḳû* to be here 'chiefs,' at any rate military captains or something of the kind: but he reads the *amêl ŠAK-MES* as *rêšê*.

This office was a high one, a military 'commander in chief,' below the Tartan indeed, but little inferior. The chief difference seems to be merely one of rank at Court: in the field, the *ràb šaḳê* was at the head of the army, unless a Tartan was also present.

This official does not figure largely in the Eponym lists. In Šamsi-Adadi's time, see *K. B.* 1. p. 178, Col. II. 17, Mutarriṣ-Ašur was Rab-Šaḳi. In B.C. 799, Mutakkil..., a *ràb šaḳê*, occurs as Eponym. In Tiglath Pileser's time *K. B.* II. p. 22, line 66, *ràb šakê* appears to be a synonym of *šut-šaḳi*. Among the Eponyms, *ràb šaḳê* is given

as the title of the Eponym on no. 177, whom I take to be Nabû-šarr-uṣur, to whom Ašurbânipal refers on no. 646 in such affectionate terms as being his *ràb-šaḳê* and tutor in arms. Others are named in our documents, Rabû-mušallim on no. 675, and Sinšumlîšir on no. 649.

The household of the *ràb šakê* is more often referred to; his servant in nos. 216, 500; his *râkasu* in no. 330, and his *mukîl apâti* in no. 34. In no. 324 the '*rakbu* of the *ràb-šakê* of the king's son,' who must be Esarhaddon, is named as the seller.

The nâš paṭri.

115. The next official named on K 4395, 1. 11 is the *amêl GÍR-LAL* or *nâš paṭri*. Del. *H. W. B.*, p. 522, puts this official down as belonging to a temple. As all the preceding officials are military, with a few exceptions possibly, this seems a little doubtful. The list however is clearly not meant to group only military offices together but to place them in order of rank. The rank of this 'dagger bearer' is very high. It is not unlikely that he was the official who slaughtered the sacrifices, and as such was a close attendant on the king at all the higher religious ceremonies. That he was the king's 'dagger bearer' and actually carried the royal weapon is less likely.

The title occurs in our documents but sparingly; in no. 248 we find Iṣbu-lîšir and *AN-MA-liṭḳi* as witnesses and both styled *nâš paṭri*. These are probably to be referred to the *amêl nikâsu* of K 4395, Col. v. 29, later: see § 174.

On K 613, R 7, *H. A. B. L.*, p. 76, Bêliḳiša mentions an *amêl GÍR-AN-BAR*, that is 'one who carried an iron sword or dagger.'

On K 629, rev. 6, *H. A. B. L.*, p. 60, Nabû-šum-iddin, speaking of the sacrifices made in Kalaḫ, after Nabû had been for a procession and had returned to his 'bed,' ascribes the execution of these sacrifices to the *amêl SAGAN-LAL-MEŠ*. Now *SAGAN*, Brünnow's no. 8975, is to be read *šamal*, and therefore this official was probably called a *šamallu*. The conjecture is possible that this is one reading also of *amêl GÍR-LAL* above: cf. Del. *H. W. B.*, p. 670 a, and § 165 later.

116. The next official on K 4395, 1. 12 is termed the *amêl zakkû*. This term does not occur in our documents. It occurs on

K 584, 5, *H. A. B. L.*, p. 138. Whether it is related to the *zakû*, *zuku* &c., which appear to be military classes, does not appear certain. Then follow the *amêl Suru*, *amêl Itu'*, and another, which II. R. 31 oddly restores to *amêl ràb-BA-MEŠ*. The first two are also names of peoples, cf. *âl* Suru, in Bît Ḥalupî, and the Itu'ai, an Aramaic people. It is very singular, to find 'folk' names in this column; were the Suri and Itu'ai, two of the ancient *gentes* in Assyria? On no. 416 we find Jada-ilu named as an *amêl Itu'ai*; whether that denotes his nationality or the same thing as here seems very uncertain: compare the Šelappai in § 118, and § 225.

The *ràb-BA-MEŠ* does not occur in our documents, but on no. 385, Bêl-iḳsar is said to be the *amêl BA-MEŠ* of the king's son. One is inclined to wonder on what grounds the restoration in II. R. was made. As *BA* is the ideogram for *ḳâšu* perhaps the official here was called *ḳâišu*: see § 203.

117. Unfortunately some twenty lines are lost from K 4395 at this point, and we have no clue to the offices named there. In column II. the first official is called *amêl ŠE-ṬU*. The ideogram *ŠE-ṬU*, read *ŠE-GIN*, is rendered *šimtu*; see II. R. 7, 15 a and V. R. 39, 34 e. Whether this is 'connected with *šimtu*,' 'fate,' or *šîmu*, 'price,' or whether either has anything to do with the office here, is still to be proved. Another ideogram compounded of *ŠE* is *amêl šimu* written with the sign *ŠAM*, Brünnow, no. 4678. This appears to mean a 'bought' slave. It occurs in our no. 182, used of a slave, and is frequently used in Babylonian documents to denote the 'price': then, of course, without *amêl*: see Tallqvist, *Spr. Nabd.*, p. 133; Del. *H. W. B.*, p. 654. The title *šîmu*, if that is the right reading, occurs on K 5466, 11, *H. A. B. L.*, p. 89, where we have *amêlê ŠAM-MEŠ*.

The amêl šelappai.

118. The next official named on K 4395, II. 2, is the *amêl šelappai*. This official appears often among the witnesses in our documents. Thus Ardi-Nabû in nos. 38, 39; Batîti in no. 125; Beašu in no. 50; Šeru-ṣêri in no. 360; Urdu in no. 394; Mušezib-Ašur in nos. 38, 39; and Nabû-šallim-šunu in nos. 38 and 39, all bear this title. In no. 125 it is written *amêl še-la-pa-a-a*, thus settling the spelling and excluding Oppert's reading, *šerippai*. On no. 360

we have the variation *amêl še-lap-ai*. On K 93, Bêl-iddina bears the same title: and on K 975 we have a list of six persons all bearing this title. Their names are, Ašur-bâni-aḫê, Nabû-rêš-iši, Kalbu, Banini, SI-DI-Adadi, and Urdu. They are followed by the names of six *aba*. There is nothing that I can see to determine the duties which this official discharged; one or two cases, e.g. no. 50, seem to indicate that it was a tribal name. Perhaps the people called Šelappai, as well as the Aramaic Itu'ai, became after conquest and incorporation the recognised exponents of some separate vocation, like the Gibeonites in Israel, who became 'hewers of wood and drawers of water,' see Josh. ix. 21, 23, 27.

The next five offices given in K 4395, viz. the *AZAG-DIM*, the *PUR-GUL*, the *MU-GUR-ŠÚ* (or *MU-GUR-KU* or *MU-GUR-KI*), the *AD-DU*, and the *DU-BA* do not occur in our documents. On Rm. 69, *H. A. B. L.*, p. 453, an *amêl PUR-GUL* is charged by Akkullanu with having stolen a golden plate from the temple of Ašur: cf. Del. *H. W. B.*, p. 542 a. For the *AZAG-DIM*, see Del. *H. W. B.*, p. 318 a, where it is read *kudimmu*. The *DU-BA* is read *maḫḫû*, II. R. 32, 19 e: cf. § 122.

The bârû.

119. The next officer in K 4395, II. 8 is given as the *amêl ḪAL-MEŠ*, possibly equivalent to *ràb bârê*. Delitzsch *A. L.*[3] no. 2, gave *amêl ḪAL* as *šêbu*: Pinches, *Sign-List.* no. 2, read it *gaššu*. Del. *H. W. B.*, p. 652 b appears to give the meaning 'elders,' 'the grey-headed ones.' In our no. 513, Nabû-aḫê-erba appears to be called an *amêl ḪAL*. See now Zimmern, *B. K. B. R.* II., p. 86, where the *amêl ḪAL* is read *ba-ru-u* and his actual functions are clearly formulated. This was the 'soothsayer'; he was specially concerned in the interpretation of the omens derived from an inspection of the liver, 'hepatoscopic augury.' A *ràb ḪAL* or *ràb-bârû*, a 'chief soothsayer,' is named in nos. 408 and 429.

The mašmašu.

120. The next officer in K 4395, II. 9 is given as the *amêl MAŠ-MAŠ*. Del. *H. W. B.*, p. 432, reads this *maš-ma-šú*, from II. R. 32, 10 e. f. He renders it *Beschwörer*, and says it is a

synonym of *âšipu*. It occurs in our documents in no. 450. Also in no. 444 we find Marduk-šâkin-šum called a *ràb mašmašê*, and in no. 450 a witness is styled *ràb-mašmašê*, of the house of the king's son. See now Zimmern, *B. K. B. R.* II. p. 93: *mašmašu*, though named along with *âšipu*, is to be kept as a distinct class-name. He exorcises diseases, and expiates sins, loosens the spell, drives away the evil demon, and renders the angry divinity gracious again.

The amêl ME-ME.

121. The next official named in K 4395 II. 10 is the *amêl ME-ME*. As both *MAŠ* and *ME* are equated to *âšipu*, and from the former, a synonym, *amêl MAŠ-MAŠ*, is formed, which is also rendered *âšipu*, there seems every probability that *amêl ME-ME* is another way of writing it; and also is to be read *âšipu*: see Del. *H. W. B.*, p. 247 a. This official occurs in our documents in no. 481, where an *amêl ME-ME šá ina pâni A.* is a witness. In many cases the sign *ME* is hardly to be distinguished from *MAŠ* and must have always caused difficulty, even to an Assyrian.

The amêl maḫḫu.

122. In K 4395, II. 11, the next official title is written *amêl MAḪ-MEŠ*. I believe the apparent plural form, like the duplications of *MAŠ* and *ME*, is only a compound ideogram, and that we have here to do merely with a graphically lengthened form of *amêl maḫḫu*. This person was a prophet of the type known as μάντις, see Del. *H. W. B.*, p. 397 b. Such a meaning is very appropriate here in succession to two types of magicians.

Whether in any district these prophets had come to be the chief magistrates is not for me to say, but in our documents I see no reason to think a *maḫḫu* of such a prophetic type is named. From II. R. 61, 21 g we learn that *amêl MAḪ* was read *gišru*, which certainly means 'mighty.' The chiefs of a district might well be called 'mighty ones,' but I should hesitate to say they were called *gišrûti*, though they may have been. Now an *amêl maḫ* is named in nos. 192, 258, 492, and the plural *amêl maḫ -(meš)* occurs in no. 500. In the former cases they are directly associated with

a city, *amêl maḫ* of Tarbiṣe or of Arbela. Hence I am inclined to think that beside the *maḫḫu* or 'prophet,' there was an official, whom, for distinction, I will call a *maḫu*, who was a 'chief' of the place or city where he dwelt. Arbela was, we know, a centre of the Ištar worship, to which the *maḫê* and *maḫḫûti* might belong. Hence it is conceivable that these 'chiefs' were also 'prophets'; but in the letters we read of the *amêl maḫâni* of Kummuḫ, as coming to visit the Crown Prince Sennacherib, as 'ambassadors.' It is simpler surely to regard these as 'chiefs.' As these 'chiefs' bring tribute, K 125, *H. A. B. L.*, p. 193, they are clearly an 'embassy' from their country. The plural is written *amêl MAḪ-MEŠ-ni*, which I read *mâḫâni*. In K 537, *H. A. B. L.*, p. 205, we read of the *amêl mâḫâni* of the Zikirtai, who act as 'chiefs.' Delitzsch, *B. A. S. I.*, p. 221, renders 'magnate.' Compare K 594, l. 13, *H. A. B. L.*, p. 81.

123. The next four official titles on K 4395, the *amêl EN-ME-LI*, the *amêl GAR-TUK-MEŠ*, the *amêl BAR-EN-KAK* (? *NA*), and the *amêl BAB-BAB-MEŠ*[1] do not occur in our documents, and I regard the readings as doubtful. The first is read IV. R. 22, 43 b, as *ša'ilu*. A blank of some four lines succeeds, the surface of the tablet being broken away. Of the next four lines only traces remain, which I cannot identify with any official titles known to me.

The mukîl appâte.

124. The next two lines, on K 4395, retain the traces...*SU-PA-MEŠ* and *MU-KIL-SU-PA-MEŠ*. These belong to the two alternative ways of writing *mukîl apâte*, viz. *LU-SU-PA-MEŠ* and *MU-KIL-SU-PA-MEŠ*. Although apparently plural in form, each title is really singular. The office occurs perpetually in our documents, and in various forms. The most common are those already named, *LU-SU-PA-MEŠ* and *mu-kil SU-PA-MEŠ*. Of forms retaining the *LU*, which is of course an ideogram for *mukîl*, 'one who looks after, or cares for,' we have *LU-SU-PA-a-te*, *LU-SU-MEŠ*, *LU-PA-MEŠ*, *LU-a-pa-te*. The forms beginning with *mukîl* have for their second element, beside *SU-PA-MEŠ*; *SU-MEŠ*, *PA-MEŠ*, *II. PA-te*, *PA-te*, *AP-MEŠ*, *SU-a-pa-te*, *SU-a-pa-MEŠ*, *PA-SU-MEŠ*, *SU-PA*, all of which occur in our documents. From these

[1] Cp. § 236.

we deduce that the second element is something in which *SU* can be omitted. *SU* is therefore probably a determinative. *PA* is the ideogram and both *a* before and *te* after may be phonetic complements. The form *II PA-te* suggests some dual affair. The *AP-MEŠ* combined with the *a-PA-te* suggest that the scribe had to write *a-pa-te*. In the Babylonian tablets we have *mukîl ap-pat*, in Nbk. 40, 1; and *mukîl ap-pa-a-tum*, in Camb. 349, 15. In our no. 604, we have further...*pa-a-ti*, which of course might be the ending of some other word, but probably belongs here. Curious deviations from the above are *mu-LU-SU-PA-te* in no. 694, and *mu-LU-PA-MEŠ*. That we are to read *mu-kîl* and not *mu-rim* is rendered nearly certain by the variant *bêl-SU-PA-MEŠ* or *bêl-apâte*.

The only reasonable attempt at reading this oft-occurring title had been made by Professor Jensen, to whom I therefore submitted my reading above. He wrote to me, April 2, 1899; to the effect that before these new variants were known it seemed very probable that *PA-MEŠ* with *SU* before it might be read *aš(s)ate*. This means 'reins,' and so does *PA-MEŠ*. But *appâte* also means that. A writing such as *a-pa-te* would prove nothing against *ašati*, for both *a* and *ti* could be phonetic complements to *PA* = *ašâti*. The *AP-MEŠ*, in no. 241, R 6, however, makes *appâti* certain. *AP* has possibly a meaning *appâti*, plural of *aptu*. The *SU* points to something of 'leather.' Thus we may take it that the reading is now certain. I may add that the 'dual' form is very appropriate to 'reins.' See Jensen, *Theol. Lit. Zeitung*, 1895, p. 251.

All through these texts we frequently meet with the 'charioteer,' the *rakbu*, or *bêl narkabti*, as a trusted and active official, in business outside that purely connected with the 'chariot.' The *mukîl appâti* may clearly be rendered 'one that holds the reins,' i.e. 'driver.' It need not surprise us to find the 'driver' of the king's chariot acting in other respects as a highly responsible official. The only question is whether this original meaning did not extend beyond driving the chariot, to other guidance than that of the reins and to 'pulling strings' other than leathern thongs. As governor is *gubernator*, may not the same metaphorical extension have rendered *mukîl appâti* a 'director of business'? The existence of a word of similar sound to *appâti* may have helped the exchange. We find from Del. *H. W. B.* p. 111, that *apâti* is a term used to denote 'people,' 'mankind.' With this we may compare Jensen, Kos. 360, 470 rm. 2; Meissner *Z. A.* VIII. 84; and K 2801, rev. 50, *šulmudi apâti*, 'to instruct

mankind'; *B. A. S.* III. p. 284. I take it that *mukîl appâti*, 'the guider of the reins,' would soon be indistinguishable from *mukîl apâti*, 'the director of people.' At any rate this is the function which the *mukîl apâti dannu ša Ašurbânipal šar (mât) Aššur* continually does discharge. The bearer of this grand title, Rîmâni-Adadi, is the greatest buyer of slaves in all our documents. He is, above all, engaged in procuring slaves for his royal master. Clearly he was 'Master of the Household.' That he was, on state occasions, also the king's charioteer, is not hastily to be denied. But I believe the scribe was aware that *apâti*, 'people,' and not *appâti*, 'reins,' felt the hand of Rîmâni-Adadi most heavily. However that may be, the scribe when he does condescend to be phonetic, or perhaps when his fancy plays with his words, writes *a-pa-te*, *a-pa-a-ti*, and not *ap-pa-a-ti*. The Babylonian scribe, doubtless, had no Rîmâni-Adadi before his eyes when he wrote, more correctly, *ap-pat* and *ap-pa-a-tum*. The scribe also, who wrote *AP-MEŠ*, in nos. 214 and 241, may not have known this turn of thought.

The *mukîl apâti* never, so far as I know, was Eponym: but the class was a very large one. I append a list of the names known to me of persons holding this office.

Aa-apl-uṣur
Adî
Aḫirâmu
Arbailai
Ašur-danin-šarri
Ašur-killani
Ašur-nadgil
Ašur-šallim-aḫê
Ašur-šarr-uṣur
Ašur-šêzibâni
Balasi
Barruḳu
Bêl-Ḫarrân-dûri
Bêl-nâṣir
Dannai
Ubarbis
Zabînu
Zagaga-erba
Zazî
Zêrûti
Ḫaldi.....
Ḫannânu
Ḫara-šarri
Ḫiri-aḫê
Ilu-šum-iddin
Kalḫai
Mannu-kî-Ašur
Marduk-šarr-uṣur
Nabû-zêr-iddin
Nabû-ḫusanni
Nabû-na'id
Nabû-rêš-iši
Nabû-riḫti-âni
Nabû-šallim
Nabû-šêzib
Nabû-šum-iddin
Nabû-šum-iškun
Sakannu
Sin-šarr-uṣur
Ṣabdai
Ṣabdânu
Ṣabdî
Raḫimu-šarri
Rîmâni-Adadi
Šamaš-ilai
Šamaš-šarr-uṣur
Šarru-zêr-ukîn
Šarru-êmurani
Šumma-ilâni.

Not only was a *mukîl apâti* a proper official in the king's household, we find that the king's son had one, see nos. 115, 345,

477, 151. The *ràb šaḳê*, in no. 34; the *BI-LUL* in nos. 236, 240, each had such an official. When a large estate in Laḥiru was sold, the *mukîl apâti* of Laḥiru was a consenting party. This hardly looks like the part a mere 'charioteer' would play. The Queen Mother had no less than two of these officials in her household, named on K 1359.

The Spearman and the Archer.

125. The next two official titles given on K 4395, II. 25, 26, are not certainly to be explained. There may be some sign lost at the beginning of the line. They however appear to be, the *amêl UŠ-KI-UŠ*, and the *amêl UŠ KIB-SI*. As *UŠ* is the ideogram for *redû*, 'a driver,' also 'one who tends' animals &c.: and as *KI-UŠ* is an ideogram for 'footstool,' one name for which is *kibsu*, we should probably read both *redû kibsi* and render 'the bearer or warder of the footstool,' doubtless the official who placed the cushion beneath the feet of the monarch when he took his seat on the throne.

The next title is *amêl GIŠ-A-RIT*. The *arîtu* or 'shield,' Del. *H. W. B.* p. 129, is invariably written with the determinative of wood, *iṣu*, before it. The analogy of *amêl BAN*, alongside *amêl GIŠ-BAN*, renders it probable that *amêl A-RIT* would be sometimes written. On no. 324, Bêldûri is called *šalšu šá A-RIT*; this may mean 'the *šalšu* of the *arîte*.' The *amêl A-RIT* is of course the 'shield bearer.' On the monuments he also carries 'a spear,' and was therefore the 'spearman.' On K 506, *H. A. B. L.* p. 252, we read of an *amêl ràb ḫanšâ*, with a hundred *amêl ša* (*iṣu*) *a-ri-te*: see further, § 225.

Then follows on K 4395, II. 28, the *amêl GIŠ-BAN*, or *amêl ḳašti*, the 'bowman.' This term does not occur in our documents; but on no. 693 we have *ḳašâti* or 'bows.' On K 8103, III. 4, 6, *ḳašâti* appears to be used in the sense of 'bowmen,' thus 17 *GIŠ-BAN ina pâni Nabûli' šaknu apil šarri*, there follow a number of other persons *ina pâni* other officials: see further, § 225.

The amêl ša eli âli.

126. The next title in K 4395, II. 29, seems to be curiously periphrastic. The *amêl ša eli âli*, or 'official who is over the city,' is very like an explanation of a title. However, it occurs in our

documents. Thus in no. 237, Adadi-šarr-uṣur, and in no. 285, Sieḫailu, are described as *amêl ša eli âli*. In no. 64 we read of 'the house of the *amêl ša muḫḫi âli*,' apparently giving its name to a city. Compare, K 594, R 13, *H. A. B. L.* p. 81.

Although the office may be functionally the same as that of the *ḳêpu* § 127; it seems best not to read it so.

There are several other officials described as being 'over' something. In nos. 77, and 209, we find an official *ša eli bîti*, 'who is over the house.' The house referred to may be a *bît ili* or 'temple'; but it is equally likely to be the palace. In nos. 48 and 49, Nabûšezibani is described as the *šaḳû ša eli bît šarrâni*, 'the chief who is over the house of the kings.' Another was 'over the' *bît šarri* in no. 575; cf. further, nos. 642, R 13; 31, R 5; 412, R 9; 640, R 7. The title *ša eli bitâni* occurs in nos. 260, 284 and 326. This is also the next title on K 4395, II. 30.

Another curious descriptive title is that of Nusku-aḫ-iddin, who is said in no. 618 to be *amêl ša eli ḳalate*. As he is named amongst others of priestly functions perhaps he was 'over the burnings,' i.e. 'the burnt sacrifices.'

On K 3042, R 5, a *ràb ḳa-ḳu-lat* is mentioned, cf. K 1101, *H. A. B. L.* p. 147, where we have *ràb ḳa-ḳu-la-te*. We may perhaps compare the *ràb SE-SA* of § 114: as *ḳaḳullu* is (*šam*) *ELTEK*.

The next title on K 4395 appears to have been *amêl ša eli SILA*, doubtless to be read *ša eli suḳi*, 'who is over the streets.' This was the 'road surveyor.' Perhaps this was the title of Ibaššiilu in no. 161.

The ḳêpu.

127. The next office named on K 4395, III. 1 is that of the *ḳêpu*, spelt phonetically *ḳi-e-pu*. There is no doubt whatever that *amêl TIL-GÍD-DA*, in the next line, is the ideographic way of writing the same. In our documents we have this *TIL-GÍD-DA*, in no. 88; and the duplicate, in no. 87, has *ki-e-pu*. Such passages as IV. R. 33, 1: V. R. 6, 84 give *TIL-LA-GÍD-DA*: but this fuller spelling is not in col. III. of K 4395, as Del. *H. W. B.* p. 584 a gives. See Pinches in S. A. Smith's *Ašurb.* I. p. 108; from our no. 88, and V. R. 4, 104. In Str. Nbd. 637, 8 we have the form *amêl TI-LA-GÍD-DA*, and in Str. Nbd. 102, *amêl TI-LA-MEŠ*;

compare *TUL-LA* = *ḳeputu*. The spelling is usually with *ḳ*, but Str. Nbd. 662, 15 has *ki-i-pi*. By far the commonest way of writing it is *amêl NI-GAB*, which is given on K 4395, III. 7. This fact and the functions which the *ḳêpu* seems to discharge, make me think that all the first 8 lines of col. III. describe the *ḳêpu*.

The first form *ḳi-e-pu* is given in our no. 461, *ḳi-e-pi* in no. 17, *ḳi-pu* in no. 363.

The two forms *ḳi-e-pu* and *TIL-GÍD-DA* are given on 87 and its duplicate 88.

The third form in K 4395 appears to read *ràb PIN-MEŠ*: now *PIN* being usually read *irrišu*, this is very likely *ràb irrišê*, that is a 'director of agriculture.' This title *ràb PIN* occurs in no. 278 as that of a witness. Whether *PIN* here is the 'person,' *irrišu*, or the 'craft,' *erišûtu*; is a little difficult to decide. It seems certain that one of the functions of the *ḳêpu* was the superintendence of an agricultural district, as distinguished from a settled populated town; an *âl še*, as distinguished from an *âlu*. The plural of *ḳêpu* is given in Del. *H. W. B.* p. 584, as *ḳêpâni*, on the authority apparently of v. R. 6, 8 *amêl ke-pa-a-ni*. Alongside this there often occurs, in the census tablets, the term *kêpâni*, used to denote a 'district' or 'ward.' Certain estates are said to be *ina kêpâni*, which appears to denote the agricultural district under the rule of a *ḳêpu*. In v. R. 6, 8 the *amêl kêpâni* are contrasted with the *amêl ḥazanâti*. I am not satisfied that these forms *ḳêpâni* and *ḥazanâti* are proper 'plurals,' so much as 'abstracts.' The *ḥazânu* was the 'town' magistrate, the *ḳêpu* the 'country' magistrate: their districts were their *ḳêpânu* and *ḥazânâti*.

As the next line in K 4395, III. 4 informs us, the *ḳêpu* was not only over a *ḳêpâni*, as an agricultural district, but over those lesser townships, probably as much forts as towns, known as *ḥalṣu*. He was therefore the *ràb ḥalṣu*. This particular form does not occur in our documents, but Sennacherib speaks of the *ràb ḥalṣu* of Durilu, see Del. *H. W. B.* p. 279 *b*. Ṣabai was a *ràb âl ḥal-ṣu*, on 83-1-18, 18, *H. A. B. L.* p. 353.

In the next line of K 4395, III. 5 the *ḳêpu* appears as *ràb birte*. As is shewn by K 49, col. II. 23, *birtu* was practically the same thing as *ḥalṣu*, viz., 'a fort.' Undoubtedly the *ḳêpu*, as warden of the open country, usually had his head-quarters in some fortress. This side of his character is well illustrated by our documents. In no. 363, we have the *ḳêpu* of Kar-Šamaš, in no. 367 of another city.

Sennacherib mentions the *ḳêpu* of Ḥararati. He was probably employed as 'director' or 'steward' of the estates of a temple, in no. 450; where the *ḳêpu* of Nabû is mentioned. The Tartan had his *ḳêpu*, no. 50; where also we have the *ḳêpu* of the temple of Ninip and of the New Palace. The *ḳêpu* of the palace is often mentioned, in nos. 244, 255 (three of them), 450: also the *ḳêpu* of Bît Kidmûri in no. 318. These were all 'wardens' of estates, not 'door-keepers.'

If I am correct in my suggestion that the first eight lines of col. III. in K 4395 all deal with the *ḳêpu*: line 6 presents a fresh side of his office. There we have *amêl ràb imêr úrât*. This conveys a welcome piece of information. The *ràb urât* occurs very often in our documents. The second element in the title is given very variously. We usually have *Ú-RAT*, also *U-RAT* in no. 444, *Ú-RAT-MEŠ* in no. 418, *U-RAT-MEŠ* in no. 200 and phonetically *ú-ra-a-te* in no. 151. The mention of the *ràb úrê*, and the various passages collected by Del. *H. W. B.* p. 130 a, under *urû*, render it certain that the *ràb urâti* was the 'master of the stud of brood mares.' This fact seems insisted upon by the use of *urâte*, 'mares,' rather than *urê*, 'horses.' This branch of agricultural pursuits was then specially in the hands of the *ḳêpu*. The prefix *imêr* in K 4395 removes any doubt that might be left, whether *urâte* were 'animals' or 'stables.' Nabû-erba, the *šanû ša ràb urâte*, or 'deputy of the *ràb urâte*,' is one of Rîmâni-Adadi, the *mukîl apâti dannu's* most frequent witnesses. He occurs in this office, no less than fifteen times, between B.C. 671 and 663. Who was then his superior officer, the *ràb urâti*, to whom he was *šanû*, is not quite certain. However, on no. 627, we find Adar-ili as *ràb urâti* in B.C. 666; and Ḳurdi-Adadi, later in Ep. Y., see nos. 151 and 440. The house of this official, *Bît amêl ràb úrat*, is named on 82-3-23, 13; 5: on K 117, l. 5, *H. A. B. L.* p. 75 we have *šanû úrât sisê*. The next title given on K 4395 is *amêl NI-GAB*: in virtue of its Semitic reading one may be tempted to read it *NI-KAP*. Delitzsch in his *A. L.* 2nd Ed. p. 129, and 3rd Ed. no. 115, gives *NI-GAB* = *ḳêpu*, but under *ḳêpu* in *H. W. B.* p. 584, he does not quote *NI-GAB*. An absolute equation is still lacking, but it remains highly probable: cf. § 128 at end.

The next title is *amêl NI-SUR*. As Tallqvist, Spr. Nbd. p. 105, shews, a comparison of the offices held by Mardukšumuṣur's father in Nbd. 597, 3, *amêl NI-SUR-gi-na*; and in Nbd. 845, 2,

amêl NI-GAB, makes it likely that *NI-SUR* = *NI-GAB*: cf. however, Del. *H. W. B.* p. 487 a. The title *amêl NI-SUR* is perhaps to be read in no. 320, R 4; but the scribe wrote *ni-ašur*. This can hardly be correct. On no. 244 Ašuraḥiddin bears this title, as witness.

128. The next title in K 4395, III. 9 is the *amêl ḲA-TIN*. I am not aware that any explanation has been attempted of this term, but the general impression conveyed to me, by its manner of occurrence in our documents, leads me to suppose it means something like the 'headman' of an estate. He was perhaps not in a position of such responsibility as the 'steward,' but he seems to have lived in a house belonging to his master. In the enumeration of estates, by fields and their tenants, the *amêl ḲA-TIN* is assigned the last plot and seems to be responsible for the rest; see nos. 741, 742, 748, 757.

On K 185, 11, *H. A. B. L.* p. 66, we have an *amêl ḲA-TIN-ni*, which makes it probable that we should read the title phonetically as *ḳatinnu*. Whether this has anything to do with *ḳatnu*, 'a sort of cloak,' or whether we should connect with *ḳatu*, 'the store-house,' &c., of Del. *H. W. B.* p. 599 a, seems still doubtful. On K 3042, I. 20 we have mention of an *amêl rab ḳatin*.

The next title on K 4395, III. 10, is, in my opinion, to be read *amêl E-TUL-NU*, or perhaps *E-TUL-LA*. Now we have already seen that *TUL-LA* was read *ḳepûtu*. Hence we may conjecture that this also is a variant to *ḳêpu*. Consequently, it is not unlikely that the *ḳatinnu* was also a species of *ḳêpu*, if not exactly identical with it. This seems more probable than that the last two titles are equivalent to *sukallu* which follows.

Returning to the *ḳêpu* and assuming its identity with the *amêl NI-GAB*, we have the following list of bearers of the office.

Aḥulamma	Erba-aḥê	Nabû-ittia
Aḥularim	Ullu	Nabû-kudur-uṣur
Aplai	Zêrûti	Nabû-reš-iši
Aplîa	Zizîa	Nuḫšai
Ašurli'ani	Ḥiriṣai	Niḫranu
Ašur-ḳatsu	Ilu-ereš	Ninip-kibsi-uṣur
Balasu	Ištar-bâb-erba	Sagibî
Banâi	Mannukî-Adadi	Silim-Adadi
Galulu	Muḳallilmitu	Ḳûa
Didî	Nabû-bêl-šumâte	Šummatazib.

In no. 460 we have a plural written *amêl NI-GAB-MEŠ*. The *ràb ḳêpê* is often named, in the form *ràb NI-GAB-MEŠ*, or *ràb NI-GAB*, also *ràb kipu* in no. 266. Holders of this office are Aḫubasti or Ḥabasti, Abdi-Bêl, Arbailai, Nabûa, Gallul, Tabšâr... and Tariba-Ištar. The first of these occurs eight times. As Gallul also appears as a *NI-GAB*, we have some ground for reading *NI-GAB* as *ḳêpu*. The office is named before that of *mutîr pûti* in no. 50.

The sukallu.

129. The next office written in K 4395, III. 11, is the *amêl LUḪ dannu*; the *amêl LUḪ šanû* follows. It is usual to read *amêl LUḪ* as *sukallu*, see Del. *H. W. B.* p. 498 b. The meaning that comes out in the contracts is that of a 'Vizier' or some high Court official; that of 'a messenger' is not apparent.

Several of the later Eponyms bear the title, Abiramu, *sukallu rabû* in B.C. 677 is followed by Banba, *sukallu šanû* in B.C. 676 and then by the *tukultu rabû*. As this is immediately after the last appearance of the *RAB-BI-LUL* in the Eponym list we may perhaps conclude that Itti-Adadi-aninu was Tartan in B.C. 679, and that the two *sukallê* had taken the place of the *nâgir êkalli*. In B.C. 659, the Eponym Silim-Ašur was *sukallu dannu*; in B.C. 651, Ašurilai is *sukallu* and occupies the fourth place after the Tartan. It is a question, however, whether we can assume a fixed order of officials in this Post Canon period.

Beside those named as Eponyms quite a large number of *sukallê* occur in our documents. On 326, Bibê is a *sukallu rabû*, while Damiḳ-pî-Ištar and Ḳalunzu are at least *sukallê*; the *rabû* perhaps is not meant of them. Ṣabânu, in no. 675, is another *sukallu*: here the *sartinnu* appears to rank above him, and the *ràbšaḳi* and *tukultu šanî* below him. In nos. 24, 25 we find Naṣḫu-aali and Aḫulî as *sukallê* of the city Niribi. This appears to indicate that a *sukallu* was a usual official in a city. We may gather the same from no. 675, where a king's daughter appears to be provided with a city and its necessary officials.

The *sukallu* had a considerable household; no. 415 names his 'weaver'; nos. 244, 248, 416 mention his servants; he kept a *BI-LUL*, see no. 382; his field is named as a boundary in no. 382; his orchard in no. 444.

In no. 161 he appears to act as a judge, but whether properly, in virtue of his office, does not appear. That he was subordinate to the *sartinnu* is probable from no. 168, where we have apparently a *sukallu sartin*. It may however be meant that the same person bore both titles.

The original meaning of 'messenger' being taken as certain, we may perhaps account for his high position in this way. The extension of the Empire, the king's frequent absences on distant expeditions, the annual military operations or 'demonstrations in force,' rendered a highly organised 'intelligence department' a necessity. That something of the kind existed we may regard as certain from the letters. We find reports of affairs in Armenia sent, apparently in duplicate, to Sargon as king at Babylon and to Sennacherib as regent in Nineveh or Kalah. A thoroughly organised system of postal communication must have existed. The *sukallu rabû* was probably at the head of this organisation. Whether *sukallu* is connected with *sakâlu* will remain doubtful until we find the latter verb in use in connected prose. Whether the ideogram *BAR-ŠÚ-GÁL* which can in some cases be read *sikiltu*, Del. *H. W. B.* p. 498, and which may therefore well mean 'message,' is ever to be read *gallabu*, or only *kallabu*, seems uncertain. In the former case it would mean 'hair-dresser,' in the latter a 'messenger': see *kallab šipirti*, § 194.

The letter K 655, *H. A. B. L.* p. 126, is addressed to the *sukallu*, and concerns foreign affairs.

The amêl Sartinnu.

130. The list in K 4395, III. 13 places the *amêl sartin* next. On the reading of the title, see Del. *H. W. B.* p. 512 b, f.: the examples there collected abundantly prove that the *sartênu* was the 'Chief Justice.' On his relations to the *sukallu*, see § 129. Delitzsch does not attempt a derivation, but as the *sartu* was certainly the 'award' pronounced by the *sartênu*, it seems difficult to avoid putting them together. Oppert's derivation from שרת, '*servir*,' *Doc. Jur.* p. 193, is less likely. In no. 104, it is the *sartênu* who makes 'the award,' which is in the same text spoken of as the *sartu*. We know the names of very few of these 'Lord Chief Justices' of Assyria. The Eponym Ṭebetai, in B.C. 670, on no. 266, and Adadi-danan on no. 675 appear to be all. More often they are referred to and left unnamed.

The *sartênu* had his *irrišu* in no. 160, his *sukallu* in no. 168, and his *aba* in no. 171. There seems some reason from no. 321 to suppose that Ašurbânipal himself acted as *sartênu* on at least one occasion.

The next two offices *nâgir êkalli* and *NÊR-mâti* have already been considered; § 111 above. Their position here may be not so much indicative of rank as of some similarity of function. They, like the *sartênu*, may be judicial functionaries.

The ràb DAN-DAN.

131. The next title on K 4395, III. 16, is written *ràb DAN-DAN*. How this should be read does not certainly appear. The word *dandannu* may have some connection, it appears to mean 'very mighty.' Cf. § 194. The office appears in our documents in nos. 485 and 494. In the former case it stands at the head of the list and is followed by the *NÊR-mâti*, or *nâgir êkalli*, then by the *sukallu šanû*. Hence we cannot suppose it a variant of *nâgir êkalli*. Now under *sukallu* we have seen that the two *sukallê* seem to have divided the office of *nâgir êkalli* and in B.C. 678 they are preceded by the *ràb-BI-LUL*. Hence it seems very likely that *ràb-dan-dan* is the variant to *ràb BI-LUL*.

The next title on K 4395, III. 17 is not completely preserved, and I do not recognise it. There seems to be one line lost after this.

The bêl maṣarte.

132. This title, apparently intended in K 4395, III. 19, and followed immediately by *amêl EN-NUN* probably its equivalent, is clearly to be taken as 'warder of the garrison.' It does not actually occur in our documents. See Del. *H. W. B.* p. 478, for its derivation and various shades of meaning: and p. 423 a for its secondary derivative *maṣṣaru* 'a watcher,' 'warden.' Probably we are to read *amêl maṣṣaru*. The word *maṣartu* in the sense of 'guardianship' is used in nos. 646, 647, 648, 649, 650. A place frequently named as the situation of a field is the *maṣarûtu*. The field is said to be *ina maṣarûti*. I incline to regard this as local, and meaning in 'the garrison,' the district assigned to the garrison of Nineveh. There seems to me no sign of the field being handed over 'to be kept' for a time. To deposit property is *ana maṣṣarti nadânu* or *ana maṣṣarti*,

see Oppert, *Doc. jur.* p. 39: and Meissner, *A. B. P. R.* p. 118. Without dwelling on the difference in form between *maṣṣarti* and *maṣṣarûti*, the latter alone occurring in our documents, I think that a mention of the return of property would certainly be made in the case of a deposit.

The ràb ḫanšâ.

133. This title is written *ràb* 50 and its meaning is plain. The 'captain of fifty' is familiar to us from the Biblical narrative in 2 Kings i. 9 f. For the reading *ḫanšâ* see Del. *H. W. B.* p. 283 b. Delitzsch, however, does not give *ràb ḫanšâ* there, but under *rabû* p. 609. I am inclined to think that 'the fifty' was the military unit, as 'the hundred' was with the Romans. From no. 641 we see that a *ràb ḫanšâ* might attempt to take away a man dedicated to the temple service, obviously on the ground that he belonged to the group of families or district over which he had the right to recruit his troop. He seems from no. 328 to have been in close relation to a *ḫalṣu* and was clearly a military person. See further in § 224. In no. 233, Jamannû; in 328, Nergal-aḫ-uṣur; in 197, Girḫai and Pisiniši bear this title. It is also named in nos. 358, 607, 641, 680, and 629. The 'fifty' with which he had to do, seems to have been fifty couples, each couple consisting of a bowman and a spearman: see § 125 above.

The next title in K 4395, III. 22, *amêl ràb ešrite*, does not occur in our documents: whether this officer had anything to do with the *ešrû*, 'the tithe,' or whether this official had a duty with respect to some lower military group of 'ten' soldiers, there seems as yet nothing to decide: see further § 236.

The ràb karmâni.

134. This is the next title on K 4395, III. 23. There seems to be a root *karâmu* in Assyrian which underlies *kurmatu* and *kurummu*, if not also *kirimmu*. It has apparently some connection with food and drink and nourishment in general. The *ràb karmâni* may therefore be a chief officer of the 'commissariat.' The only person to whom this title is given in our documents is Ilu-amarra, who is named on nos. 137, 427, and 508. His servant is a witness in no. 464. As he is said to be *ràb karmâni* of Maganuba, one may suppose the office was a 'city' one. On no. 646, the Eponym

Labasi is given a title, *ràb kar...* G. Smith, in whose time the traces may have been clearer, read the title *ràb karnadu*. Now the traces do not look much like that, nor are they what one would expect to be left of *kar-mâ-ni*. The better known title is not unlikely, but by no means certain. On K 122, *H. A. B. L.* p. 40, l. 11, Daian Adadi is called *amêl ràb kar-man*.

That the *ràb karâni* of no. 48, written *ràb GEŠ-TIN*, has anything to do with this, is unlikely. He was clearly the 'Cellarer.' He was an official of the New Palace. On K 14, R 11, *H. A. B. L.* p. 39, this official, his *šanû*, or 'deputy,' and his scribe are all mentioned.

Also the *ràb kâri*, named next on K 4395, and frequently occurring in later Babylonian contracts, appears to have to do with matters of food and drink. It is not so likely that he is an 'inspector of weights and measures'; see Muss-Arnoldt, p. 429 b. The title does not appear in our documents, except as a possible reading of the title given to Labasi, the Eponym on nos. 646 f. The astrological report, 83-1-18, 287, gives his title quite clearly as *ràb ka-a-ri*. This goes some way towards settling the identity of *ràb kâri* and *ràb karmâni*; the former could not have been on no. 646, &c.: the latter possibly was. We may compare the *amêl kârri*, in § 194.

Another interpretation of the *ràb karmâni* and the *ràb kâri* would make them 'chief constructors': the *karmâni* would then mean 'ruins,' cf. Del. *H. W. B.* p. 354 a; and *kâru*, 'walls' &c., cf. Del. *H. W. B.* p. 349 b, f. If so, we may set aside most, if not all, the Babylonian instances and refer them to the *karû* of *H. W. B.* p. 353. In favour of this view is the next title on K 4395, the *ràb batḳi*, see Del. *H. W. B.* p. 191 b. This must be a 'superintendent of repairs.' The word *batḳu* means a 'breach' or 'crack in a wall.' Then these three titles would be closely related, if not synonymous.

If this view be correct, the *ràb kâri* had succeeded to some of the functions of the old *nâgir êkalli*, which may account for his position as Eponym. The *ràb batḳi* is named on 83-1-18, 347, line 3, where he is called *Šašî*: he is preceded by the *ràb išdi* and followed by the *ràb SE-GAR* and *ràb ŠA-ŠIT*.

135. The next title in K 4395, III. 26, is the *ràb ri'ê*, or 'master of the shepherds.' This term does not occur in our documents, though 'shepherds' are mentioned often. Thus in no. 54, Turibaltu; in no. 386, Galagusu, are named. Shepherds, in the plural, are spoken of in no. 164. References to their charges

are made in no. 625, where Ṣil-Bêl is said to be a *ri'u sagullat*; and in no. 58, where Šamaš-aḫ-uṣur is said to be a *ri'u iṣṣurâti* or 'bird-ward.' In the census tablets we read of a *ri'u enzi* or 'goat-herd.' With the enormous flocks of sheep and cattle that the Assyrian kings owned, a *ràb ri'ê* would be much needed. It is perhaps significant that the few shepherds' names we know are so unlike Assyrian names.

The next title on K 4395, III. 27, may be read *ràb TIL-LI*; in the absence of any native explanation, we may note that, while among the meanings given to *BE* or *TIL*, none seem to directly apply, *BE* does mean a 'shepherd's crook,' *ḫuṭaru*; as well as a 'sceptre.' In no. 164, the *BE-MEŠ* are perhaps to be read *TIL-MEŠ*, and then *TIL* may be an ideogram for 'shepherd.' At any rate, the close connection of *ràb TIL-LI* with *ràb ri'ê* in our list suggests that *TIL-LI* may mean 'shepherd.'

Here therefore we may note that in no. 178 Mannu-aḫê is called an *amêl ša ḫuṭari*. The 'man with the crook,' is a fair description of a shepherd.

136. The next two titles on K 4395, III. 28, 29, are *amêl GUB-ŠI*, and *amêl manzâz pâni*. In the latter form the scribe has omitted *an*, he writes *ma-za-az* for *manzâz*. Was this due to a real disappearance of the *n* in speech or was it merely a slip? Anyhow, the terms occur often enough in the historical inscriptions, as denoting the highest Court officials, those 'who stand before the face' of the king: see Del. *H. W. B.* p. 457 a. The titles do not occur in our documents, however. The title is a general one and not borne by any one class or person. Compare the *amêl ša pân dinâni*, 'he who is before the presence,' see § 213. It is just possible that the term is meant to cover all the high-placed officials whose titles have preceded it.

137. The last two offices are perhaps a mere interlude, for the list returns to agriculture and its allied arts. We have next the *amêl rîd* (*imer*) *A-AB-BA-MEŠ* and its equivalent, the *amêl rîd gammalê*, both meaning a 'camelward' or 'keeper of camels.' I have no doubt that in no. 243, 4 the scribe intended to use the first form of the title. Also in no. 196, line 1, possibly the same form was used. The title is frequently used in the schedules of estates and tenants such as nos. 741 ff., where they are called *ri'u gammalê*. The *amêl redû* really means 'a driver,' according to Del. *H. W. B.* p. 613; compare the terms *redû ša alpi*, a term that denoted the same person

as the *nâkidu* and the *ikkaru*. Delitzsch would read our first title as *rìd udrâte*. The 'ass driver,' or *rìd imêri*, is named in the same group and between the *mušakil*, 'one who feeds,' and the *re'u*, or 'shepherd.' Hence *redû* must mean something more general than 'driving,' and *redû ša ṣâbê* is, of course, 'a slave driver,' but in the milder sense of 'a superintendent of slaves'; see § 111.

The tukultu.

138. The next title on K 4395, III. 32, is the *amêl ŠI-UM*, which has been read *abarakku*, see Del. *H. W. B.* p. 12 a. As Sm. 61, 8 shews, this is an equivalent of *ŠI-UM-A*. Another reading was given in *A. L.* 3rd edition, no. 256, from a consideration of the proper name Tukultu-Ninip in its writing *ŠI-UM-AN-BAR*. The whole question of the reading appears to be this. Is *abarakku* Assyrian or even Semitic? or is it perhaps a Semitised foreign (Egyptian?) name? It has been suggested to explain the title *abrek* given to Joseph in Gen. xli. 43 by deriving it from this *abarakku*. It is a little singular, if this was the real title of the fifth highest official in Assyria, for so many years, that there should never be a phonetic spelling of it. On the other hand *tukultu* is not in a much stronger position, except that it has a real Assyrian meaning, 'helper.'

Adopting the assumption that this order of officials goes back to the earliest times, we should conclude that Ša-AN-MA-damḳa, in B.C. 880; Danân Ašur, in B.C. 854; Bêl-banai, in B.C. 824; Šamaš-ilai, in B.C. 819; bore this title; as we know Ašur-taklak, in B.C. 806; Nabû-išdi-ukîn, in B.C. 777; Šamaš-dugul, in B.C. 749; Sintakkil in B.C. 739; certainly did. In Sargon's reign the office seems to have been duplicated into a *tukultu rabû* and a *tukultu šanû*; Ṭabšâr-Ašur occupied the former office in B.C. 717 and Nabû-aḫê-iddin in B.C. 675, also later Ašur-gimil-tirri as Ep. O. Later as Ep. W. Šarru-na'id is styled *tukultu* simply. The *tukultu* is named, as a benefactor to some temple, probably also as an Eponym, on no. 705. On no. 625, Bêlna'id is named, as *tukultu* of the Crown-Prince, i.e. of Ašurbânipal, in B.C. 670. Four years later on no. 627 a *tukultu* whose name ends in *-uṣur* is named as a witness. The next year Išdi-Ašur has the title. On no. 675 Nabû-bêl-uṣur is a *tukultu šanû*, perhaps the same as on no. 627. On no. 464 we find that Ilu-balaṭsu-

iḳbi and Kunâni-Ištar were servants of the *tukultu rabê*, who is also named on no. 617.

The one known Eponym of Sinšarriškun's reign was Daddi, the *tukultu*. It does not do to assume the old order here and argue, as Pinches did, that this was the fifth year of the reign. The old order had been long abandoned.

The places where the simple *tukultu* occurs do not assign him very high rank: no. 627 puts him next a *ràb kiṣir*; no. 35 below a *šaḳû*, and three *mukîl apâte*: no. 345 puts Akdašilu and Abu-ul-idi, two *tukultu*, below a *daialu*. In K 4395, III. 33 the *amêl ŠI-UM* is followed by an *amêl UŠ-ŠI-UM*. Judging by other places in this list, we may perhaps assume this to be a variant form and not a distinct title: perhaps to be read *amêl rîd tukultê*.

The *tukultu* of B.C. 717, Ṭab-šâr-Ašur, was a frequent correspondent of the king's. He wrote K 554, K 561, K 657, K 1061, K 1189, K 1195, K 1205, K 1209, K 4304, K 8275, K 13111, K 11666. He writes about ships, bridges, canals, buildings on a river, towers, building materials, colossi, beside war news. Clearly he was a 'chief constructor.' This bears out what I said in § 111 about the office of the *nâgir êkalli* being replaced by the *tukultu*. The Queen Mother had her *tukultu*, see K 549, line 8; *H. A. B. L.* p. 59.

139. The reverse of K 4395 begins of course with the column on the right, which is col. IV. of the whole tablet. Hence the *amêl UŠ-ŠI-UM* was followed directly by *amêl mušakil alpê*: literally 'one who feeds oxen.' It is then followed by *amêl mušakil iṣṣurâti*, 'one who feeds birds.' Then follow some more ideographic writings of these titles *amêl UŠ-IMER-ARAD*, which I think reads *amêl rid alpê*, 'one who rules oxen': the alternative being that *IMER-ARAD* is to mean the 'domesticated ass,' see Del. *H. W. B.* p. 92 a. The next title reads *amêl SÍB alpê* or *ri'u alpê*. The next title is the *ri'u iṣṣurâti*. These 'herdsmen' are already dealt with in § 135.

The allied form *mukîl alpê* from *kâlu*, 'to care for,' 'see after,' 'one who looks after oxen,' also occurs in our documents, see no. 353, 8.

140. The next group of three titles all begin with *amêl SA*: they are *amêl SA-IṢ-BAN-MEŠ*, *amêl SA-IṢ-KAK-TAG-GA-MEŠ*, *amêl SA-IṢ-KAK-TI-MEŠ*. The first has clearly to do with *ḳašâti* or 'bows': in the second *IṢ-KAK* is perhaps *sikkatu*

'a bolt,' &c.: *TAG-GA* has the force of the verb *maḫâṣu*; see Brünnow no. 3798. This can hardly mean 'one who brings about the destruction or smashing of bolts.' The next term is apparently *amêl SA-PA-MEŠ*, perhaps 'one who uses clubs or maces'; cf. *PA* = *ḫattu*, a 'sceptre,' also a 'mace.' Hence we may take it that all are only different ways of writing down *mâḫiṣâni*, the plural of *mâḫiṣu*. The next again is clearly *amêl IṢ-BAN-TAG-GA*, and v. R. 32, 20 d, e gives *amêl BAN-TAG-GA* as *maḫiṣu*. It is quite possible that the 'bolt' here may be a 'missile.' As *SA* is the ideogram for a 'string,' 'snare,' &c., we may perhaps really have to do with 'slingers.' The 'stringer of a bow,' is also conceivable for the first of the group.

The *amêl ma-ḫi-ṣu*, however, occurs in our documents as a witness in no. 631, and our list here would hardly include 'the robber' as a profession. It seems, therefore, likely that *maḫiṣu* bears some other meaning. The *amêl SA-IS-KAK-MEŠ* may be identical with the *amêl IS-KAK-MEŠ* of our no. 625 R 13: and we may further compare the *amêl ràb IS-KAK-MEŠ* of no. 575, R 11, and the *amêl ràb KAK-MEŠ* of no. 62, 6. These however lack the *TAG-GA*, which in K 4395 seems to form the link with *mâḫiṣâni*: see later, § 207.

141. The next title in K 4395, IV. 12, is written *amêl GAR-KU-KU*, *KU* being Brünnow's no. 3343. As *KU-KU* is given, by IV. R. 21, 52 a, as equivalent to *dašpu*, 'a sweet drink' or 'mead'; we may suppose this to be a 'maker of mead.'

The next title is *amêl BAR*, and on the same line, apparently as a synonym, we find *amêl NU-GIG-ḫi*, which Brünnow, no. 2017, suggests should be read *ḳadištu*, 'a votary of Ištar.' That seems unlikely here. The *amêl NU* in *amel NU-IS-SAR* is certainly 'one who attends to, or works the *IS-SAR*.' Hence *amêl NU-GIG-ḫi* should be 'one who works or attends to *GIG-ḫi*.' But *GIG-ḫi* is a sort of grain—and perhaps this title denotes a 'brewer' of some drink. It is not entirely inconsistent that a brewer of intoxicating drinks should be a votary of Ištar.

The irrišu.

142. The next line on K 4395 is badly damaged, but appears to me to have read *amêl PIN* followed by *amêl PIN-IS-SAR*.

Amêl PIN, usually read *erišu*, better *irrišu*, see Del. *H. W. B.*

p. 140, is an 'irrigator': usually also with the attached idea of 'planter.' It is also, as S^{b} 290 shews, to be read *ikkaru*; see Del. *H. W. B.* p. 586. There seems to be no doubt that *irrišu* and *ikkaru* to a certain extent overlay. It is difficult, if not impossible, now to apportion the exact duties of the Assyrian cultivators. We may easily make a mental distinction between the sower of wheat, barley, or something like a sort of rice, and the irrigator. It is most probable that the duties were often discharged by the same person. Even if we can assign the exact etymological sense to each term, it is difficult to avoid the conclusion that probably in practice these distinctions were not preserved.

So far as I am able to judge, the *irrišu* was the cultivator of the *eḳlu* or 'field,' while the orchard or plantation of trees, the *kirû*, was cultivated by the *amêl NU-IṢ-SAR*. This last is carefully to be distinguished from the *ikkaru* acc. to Del. *H. W. B.* p. 58 b. At any rate the *amêl NU-IṢ-SAR* is contrasted with the *amêl PIN* on K 582, 15 f., i.e. *H. A. B. L.* p. 160. Also that passage shews that *IṢ-SAR*, which we knew to be a plantation of some kind, is to be read (*iṣu*) *urḳi*, i.e. 'vegetables.' The ordinary *IṢ-SAR* is therefore a 'vegetable garden'; though, in the contracts, that rendering is to be kept for the case where *ú-SAR*, i.e. *ŠAM-SAR*, i.e. *šammu*, 'vegetable,' is expressly added. The contrast therefore is between the tiller of the field, *amêl PIN*, and the 'gardener,' *amêl NU-IṢ-SAR*. This does not however separate between *amêl PIN* as *irrišu* and *amêl PIN* as *ikkaru*. Here, if my reading of the traces is correct, we have an *amêl PIN-IṢ-SAR*: and therefore *amêl PIN* is a term that covers both the 'tiller of the field' and 'the cultivator of the *IṢ-SAR*' but not the 'cultivator of the garden.' It seems then reasonable to suppose that *amêl PIN*, when read *ikkaru*, refers to 'the cultivator of the orchard,' i.e. a plantation of such trees as the date, &c.: and when read *irrišu*, to 'the cultivator of the field.' A term for gardener proper, that is a cultivator of *urḳi*, is yet to seek: Del. *H. W. B.* p. 243 b suggests *amêl urḳi* and perhaps this is the true meaning of the *amêl ur-ki-u* which will be discussed later: § 191.

In Strassm. *Nbkd.* 459, 1 the *amêl PIN-MEŠ* are distinguished from the *amêl ir-ri-še-e*: but both have to do with *ŠE-BAR* or 'corn.'

It is clear, therefore, that when in our contracts *amêl PIN* appears, we shall have to be guided by the context whether we are

to read it *irrišu* or *ikkaru*. When that context is merely a list of witnesses, we have no guide as to which is meant. A general term is not easy to fix upon, 'peasant' is too wide and 'farmer' conveys a wrong sense. The only word, I can think of, is 'cultivator.' That irrigation was part of the cultivation is clear; but 'irrigator' does not cover all the duties; and perhaps was not so prominent a duty in Assyria as in Babylonia.

A list of names of these 'cultivators' may be interesting.

Abdûni	Zukarramu	Nabû-aḫ-uṣur
Aḫu-iddin	Ḫaṭṭu-šu-aldî	Parutâni
Aḫu-lamašši	Kamasu	Šulmu-Bêl.
Bêl-lî'	Karḫai	
Dâri-Bêl	Kurmê	

In no. 278 a *ràb eriši*, i.e. *ràb-PIN*, acts as a witness; he was evidently a 'headman.' An agricultural district, large enough to be termed an *âl šê*, 'leased in its entirety with its fields,' carried with it '9 *irrišê adi nišêšu* in it.' We do not know the area. That the status of the cultivator was that of *glebae adscripti* is probable from his being sold along with the lands he cultivated in nos. 420, 427, 429, 471. He seems also to have been sold separately in some cases; e.g. no. 301, 4: though this may be only apparent. He was able to represent his master in legal transactions, e.g. no. 110 where Šulmu-Ašur seals the tablet, though he is only the *amêl* (*iṣ*) *PIN* of the real seller, Kiṣir-Ašur. As a witness, in no. 160, Aḫu-iddin is the *amêl PIN* of Laḳipu: and Parutâni is the *amêl PIN* of the *sartênu*. As this document contains a legal decision against Aḫulamašši, himself an *amêl PIN*, it is interesting to note that two of his 'peers' were witnesses. Ḫaṭṭušualdî is a witness on no. 481.

143. It is curious to notice in no. 50, 3 what appears to be a compound of *PIN*. The text seems to read *amêl naggaru PIN-MU-GIR-RI*, which is perhaps a carpenter who made the *PIN*. The *IṢ-PIN* was the watering machine *narṭabu*, sometimes worked by hand; but also, as K 2014 R II. 1 f. shews, worked by 8, 6, 4 or 2 oxen. The names given to these different 'ox-power' engines are, as Del. *H. W. B.* p. 618 b restores them, *summunu*, *sudušu*, *rubû* and *šunnû*. Another sort was called a *narṭabu ariku*. In this case the ideogram is read *IṢ-APIN*. Another ideogram for this machine is *SUN*. The *IṢ-APIN* is properly a wooden instrument for cultivating the land, especially for its watering: it was placed *aḫi*

bûri, 'alongside a pit.' Tiglath Pileser boasts of having set to work *narṭabê* throughout Assyria. Hence in our case the smith who made these 'shadoofs' or irrigating machines is probably meant. The force of the *MU-GIR-RI* is not yet clear to me. See further under the *naggaru*: § 197.

A variant to *amêl PIN* seems to occur in nos. 110, 2 and 432, 5, which is *amêl* (*iṣu*) *PIN*. Perhaps this is an 'irrigator' proper, distinguished from the mere cultivator who used the *narṭabu* on occasions. Perhaps we should read his title *raṭbu*; cf. later, § 220. The term *amêl PIN-mâti* in no. 427, shews I think that Kurmê, who bears the title, was the 'cultivator' of the 'land' with which he was sold. On the other hand *mâti* in titles is often to be read *êkalli* and he may have been a 'palace gardener': compare no. 693. In no. 413, we read of *âl PIN-MEŠ*, 'the city of the irrigators': I think this was the quarter of Nineveh occupied, chiefly, if not exclusively, by this class.

144. The next title on K 4395, iv. 14, is, if my eyes do not deceive me, *amêl PIN-IṢ-SAR*. This form does not occur in our documents, and we may hesitate to accept its existence, until another clear case has been found. On the other hand it seems strange that so common a form as *amêl NU-IṢ-SAR* should be entirely omitted from K 4395, and this place either shews that *amêl PIN-IṢ-SAR* is equivalent to *amêl NU-IṢ-SAR*; or as above, that *amêl PIN* is *irrišu*, when dealing with 'land,' and *ikkaru*, when dealing with orchards or the like. Then *amêl NU-IṢ-SAR* is the 'gardener' proper and deals with what is known as *urḳitu* generally.

With these reservations we may pass to consider here

The amêl NU-IṢ-SAR.

He is the gardener, possibly to be read *amêl urḳi*; as King gives in his *First Steps*, p. xcvii. no. 48: or *urḳiu*, see § 191. Also we may note that he is usually associated with an *IṢ-SAR ša* (*iṣu*) *belit* in nos. 427, 444, and the schedules. This plant, whatever it be, can hardly come under the head of garden produce. In default of better knowledge I have termed it 'lady' palm. They were counted, which would hardly be the case with vegetables. The numbers are very large indeed, in no. 422, 3 we have 'ten thousand' given. That they were plants in the plantation is certain, for in nos. 66 and 359 we read *kirû ša* (*iṣ*)*belit zakpu*. Meissner, *Supp.* p. 24 seems to

prefer the spelling *be-liṭ*, but gives no further explanation of the word. He, however, gives the meaning '*Baum.*' As far as I know, the word does not occur outside our documents. However, I may remark that the two ideograms for *beltu*, 'a lady,' Brünnow's nos. 6983 and 7336, both form, with the addition of *ME*, an ideogram for 'green things,' 'vegetables.' Hence it is possible that (*iṣu*) *belit* might after all be simply 'vegetables.' On the other hand we may note that *iṣṣi biltum gišimmarê rabûte u ṣiḫrûtê*, *var. iṣṣi bi-il-ti* is the later Babylonian phrase for an orchard planted with date palms: *B. A. S.* III. p. 426. In no. 447 the *IṢ-SAR* is said to be *zârat*, i.e. 'sown.' This probably excludes the idea of 'orchard' in favour of 'garden.'

The remarks on the status of the *irrišu* mostly apply to the *NU-IṢ-SAR* as well. He was sold with the land he cultivated in nos. 447, 427, 444, 465, and in the 'schedules' appears to go with the land. He was sold alone in no. 235. In no. 182, the *NU-IṢ-SAR* 'of the palace' appears as the seller of a slave. In no. 366, he as servant of the *bêl IṢ-SAR* acts as seller. In nos. 360 and 600 he appears as witness.

A plural *amêl NU-IṢ-SAR-MEŠ* appears in no. 468.

The list of names outside the schedules is as follows:

Ašur-bêl-utaḳḳin	Zizî	Lusumu
Unzarḫu-Ištar	Ḫaldi-ilai	Mardî
Zabînu	Iṣbutu	Ḳaúsu

The malâḫu.

145. This title is written on K 4395, IV. 15 in the form *MÁ-LAḪ*, where *LAḪ* is the double *DU*. This is the 'boatman,' certainly 'one who propels the boat,' with an 'oar,' or more probably, a pole. There were fewer canals in Assyria than in Babylonia, but the *malâḫu* occurs in our documents. In no. 57, Šim-Ištar appears as a lender probably; in no. 324, Rasu' appears as a witness; also Ḫarmaṣa, as witness. The last no. gives the form *MÁ-DU-DU*. The plural appears in no. 191, as *MÁ-DU-DU-MEŠ*, of witnesses.

On no. 307, R 9 Siḫpimâú appears as a witness and his title is given as *NI-LAḪ*, the *LAḪ* being the double *DU*. This may be a scribal error for *MÁ-LAḪ*, only the *NI* is very clear and certain. On the other hand he is certainly one of the three *ur-ki-ú-ti* counted in R 12. This does not prove that the reading of *NI-LAḪ* is *urkiú*, because one of the three is also an *ašlaku*.

The ušparu.

146. The next title in K 4395, IV. 16 is *amêl UŠ-PAR.* This according to Del. *H. W. B.* p. 147 a is to be real *išparu.* The whole subject of the weaver's craft has been finely worked out by Zehnpfund, *B. A. S.* I. p. 492 f. He draws his information from the later Babylonian contracts. There is some reason to suppose that everything was the same in Assyria. The Babylonians appear to have largely depended upon their weaving, for material for trade with other countries. It is not likely that Assyria was so dependent on the 'weaver': the Babylonish garment had no Assyrian competitor.

The weaver however is very much in evidence in our documents, though we have far less cause for his appearance, having none of the numerous weaving accounts that occur so often in Strassmaier's contracts.

He appears in our documents in a somewhat servile position. In nos. 172, 268, 642 the weaver is sold. In no. 453, Arbailai is called a *ràb išparê*: in no. 59, Nabûtî appears as a *ràb kiṣir ša išparê.* Therefore there was a *kiṣru* of weavers. Doubtless many great households kept their weavers. On no. 642, Ištar-šum-iddina, the *išparu* of the Queen acts as a seller of another skilled weaver to a temple. In no. 415, we read of Latubâšâni-ilu, as *išparu* of the house of the *sukallu* and witness. In no. 469, a witness, Ṭâb-Sagal is a 'palace weaver' probably.

The frequency with which the 'weaver' appears as witness, in nos. 326, 357, 392, 244, 453, 415, 469, 447, 474, 382, 392 and 630, shews that, even if a slave, he was something above a mere menial.

A curious periphrasis for weaver appears in nos. 172, 382, 392 where we have *amêl šibirru.* Now *šibirru*, properly a 'staff,' is certainly a 'shepherd's staff': see Del. *H. W. B.* p. 639 a. K 4361 gives as one group the sign that Delitzsch gives (not in Brünnow) with the meanings *šibirru*, and three other ideograms with the meanings *ušparu*, *ḫaṭṭu* and *palû.* There can be little doubt that this is the same as the *šibirru*, which Brünnow gives as no. 8847. This latter appears certainly, in no. 172, 3, with *amêl* before it. The two places, nos. 382, 2; 392, R 3, give Brünnow's no. 4806 with *amêl* before it: this is read *ušpar.* Brünnow's no. 4665 is also read *ušpar.* There seems therefore considerable latitude in writing the sign for *šibirru* or *ušparu*, but they all seem to denote the same

thing, the 'weaver's wand.' There can be little doubt that with *amêl* before them, they are to be read *išparu*.

There were some divisions among the weavers; in nos. 324 and 642 we have the *išpar birmi*, the weaver of bicoloured yarn; as Zehnpfund thinks, or of linen-yarn; and in no. 172 we have the *išparu* of (*Ku*) *ṣiprat*, weaver of some special cloth. The *išpar iṣi*, the weaver of bast fibre, or canvas cloth, as Zehnpfund thinks, does not appear in our documents.

The names of weavers are interesting

Aḫu-limdu	Kibinê	Sukkai
Ardiai	Latubâšâni-ilu	Šamaš-rîmâni
Urdu	Nabûtî	Šumma-Nabû.
Ḫaldi-eṭir	Nergal-šallimâni	
Ištar-šum-iddina	Sagibî	

The superior official, *ràb išparê*, or 'chief of the weavers,' is Zêr-Ištar on no. 447 and Arba-ilai on no. 453. Compare also no. 679. K 829 gives a list of weavers, 25 in Rab..., 20 in Raṣappa, 10 in Arzuḫina, 5 in Mazamûa, 25 in Arapḫa, 30 in Kar-Ašur, 20 in Laḫiru, in all 145 weavers. These were very likely 'royal weavers.'

147. The next term in K 4395, IV. 17, is *amêl IB-KAK*. As this term is nowhere else explained, one may suspect that it is either a synonym or a close relation of the preceding. Now it is well known that a sign in the ideographic expression often represents two or more words of the same or similar sound even when their senses are quite distinct. Now *KAK* means *êmû*, both in the sense of 'to unite, connect' and in the sense of 'to be like': see Del. *H. W. B.* p. 82. Also we may note that the signs read *ušbar*, Brünnow's no. 4667 and 4807, are also read *êmu*. Delitzsch, *H. W. B.* p. 78 b, takes the former as giving *êmu*, 'a father in law.' The many cases of *êmu* given in v. R 39, 43, 44 b he also refers to this relationship. Hence he gets a series *êmu*, *êmu rabû*, *êmu ṣiḫru*, and *êmitum*. Also *IB* means *barû*, as also does Br. no. 4666. Hence there seems a close relationship between the ideograms for 'the weaver' and our *amêl IB-KAK*. Further, as in the case of the *amêl PIN* there was a close connection with the *IṢ-PIN*, we may suspect our official to be closely related to the (*iṣu*) *IB-KAK*, which follows *IṢ-KAK* on K 2026. The latter is usually *sikkat*, 'a bolt, peg, nail, &c.' Hence we may suppose *IS-IB-KAK* is the *sikkat* of the *amêl IB-KAK*. Following this up, we may note that

IS-KAK-SI-BA-LAL is rendered *sikkat šumê*, and this *šumê* may bring us back to *êmû*. Can it be that *êmu*, perhaps that root meaning to 'connect together,' had anything to do with 'weaving'? If *êmu* is a 'weaver,' and *êmitum*, a 'female weaver,' *êmu rabû* could be a weaver of 'large cloth'; *êmu ṣiḫru*, a weaver of 'bands' or 'strips.' Or could *êmu* be the web itself? I know of no parallel word except חמה 'a girdle' given by Castelli as Chaldaic. In any case I think it quite likely that *amêl IB-KAK* means 'a weaver.' Muss-Arnoldt under *ušparu* suggests that *êmû* means 'to weave,' 'unite.' As I had not noticed this, when I wrote the above, it may serve as a confirmation.

148. The next title on K 4395, IV. 18 is *amêl ŠÚ-ḪA*, i.e. *bâ'iru*: Brünnow, no. 7244. The fact that one of the values of Brünnow's no. 4669 is *bâru* while another is *êmûtu* may have suggested the putting of *bâru*, 'the fisherman' next 'the weaver.' Can the connection of ideas be that *bâru* means to 'draw out' and both weavers and fishers deal with lines?

The next line on K 4395 is very damaged, it may be *amêl ḪA-DIB-BA*, another ideogram for 'fisherman'; the next line is quite illegible to me: and so are lines 21, 22 and 23. Line 24 seems to be *amêl ràb-šá UŠ-TE*, perhaps a *ràb-šá ridûte*.

The mâr šipri.

149. The title in K 4395, IV. 25 is given as *amêl A-ḲI* which is to be read *mâr šipri* and means 'a messenger.' As in line 27 a phonetic reading *amêl* (*A* =) *apil šip-ri* occurs, I think we are justified in assuming that *amêl GAR-ḲI-GE-A* is another ideogram for the same office. Perhaps the first two signs are to be read *šakin*. These titles do not occur in our documents, except in no. 62, unless line 2 of no. 192 a be restored *amêl apil šip-ri*. The form which does occur in our documents is *amêl A-SIK*; which see, § 162. In K 621, we have the spelling *ḲI-A*.

The next title is *amêl UM-ME-A*, given by v. R 39, 48 a, b, to be *ummânu*, literally an expert in some craft, hence generally 'a workman.' It does not occur in our documents.

The next title is *amêl GÙ-GAL*, which Delitzsch, *H. W. B.* p. 194 a, reads *gùgallu* and takes to mean 'regent.' There is another *gùgallu* meaning 'a large bullock.' v. R 16, 8 c gives *ašaridu* as a synonym. It does not occur in our documents.

The next title may be read *amêl ràb TIK-IK-MEŠ* of which I can say nothing.

150. The next title is *amêl ràb KU-KA-SAR* followed immediately by the *amêl KU-KA-SAR*. The former occurs on no. 457, R 6: perhaps as the title of a witness. On no. 260, Ululai holds this office and as a witness precedes the *mukîl apâti* of the Crown-prince, but follows another *mukîl apâti*, probably of the king. Lower down appears the great Rîmâni-Adadi as *mukîl apâti ša dunanati*. In no. 59, Amramu appears as *amêl KU-KA-SAR* of the palace and witness. In no. 77, it is the office of a witness. These places speak for the high respectability of the position. On the other hand on no. 294 we find Ḥalmusu holding this office and yet sold with others.

In most compounds of *KA-SAR*, we read it *kiṣru*. The sign *KU* is an ideogram among many other things, of *šipru* 'a message,' *ṭêmu* 'an order' and *tamû* 'to speak.' Perhaps the *amêl KU-KA-SAR* was one who gave directions to or about the *kiṣru*: cf. the *ràb kiṣir*.

The last title on Col. IV. of K 4395 is the *amêl ràb KA-ṢIR*, which is perhaps a synonym of the last.

The šangû.

151. Col. V. of K 4395 starts a new section, the religious officials. The first is *amêl RID dannu*. As *amêl RID* is *šangû* and means 'priest,' we can have little hesitation in taking this to be a 'High Priest.' His position at the head of the column bears this out. We have no mention of such an official in our documents. Probably like the king he did not directly transact business. It is a pity, as we should have liked to know the names of some of these men.

Next comes the *amêl RID ša bît Kidmuri*. The *bît Kidmuri* was the temple of an Ištar, worshipped in Nineveh, as *Ištar ša bît Kidmuri*: she is known also as *Šarrat Kidmuri*, 'Queen of Kidmuri.' She appears to have been distinct from Ištar of Nineveh and Ištar of Arbela. A clear appreciation of her position is still to be sought. In our documents, this priest appears as witness, Ep. R on no. 642, after the priest of Nabû, the *mukîl apâti* of the *ràb šaḳê*, and the *amêl ša eli bîti*. His name appropriately was Ardi-Ištar. On K 1101, Šarru-na'id, son of Bêl-rîmâni, holds the office.

Although K 4395 does not mention any other *priests*, we may notice here those that occur in our documents. The *šangû rabû*, possibly the same as the *šangû dannu*, on no. 657, was Abu-ul-idi. He clearly was the seller of an estate, and probably in the times before Sargon.

Priests of Ašur are referred to, on nos. 205 and 542.

A priest of Ištar, probably Ardi-Ištar, in Ep. O, was a witness on no. 640.

He is followed by a priest of Adad.

Priests of Nabû of Nineveh are referred to on nos. 394, 640, 641, 642. The last three are the same person, Nabû-šum-uṣur, Ep. O, Ep. C, Ep. R. Marduk-šarr-uṣur is also priest of Nabû on no. 640.

Iddinia appears as priest of Ninip, on nos. 640, 641, 642.

A priest of Nêrgal (*ilu ŠI-DU*) occurs, on no. 181.

A priest of Tašmêtum, named Unzarḫu, occurs on no. 255, and is followed by Mardî, priest of *ilu KUR-KUR-NUN*, and then by Gula-zêr-ibni, priest of Gula.

A priest of Bêl is possibly named, on no. 216.

Nabû-aḫ-iddin, no. 360; Silim-ilu, no. 245; Šum-lîšir, no. 603; and Šumma-ilu, no. 374, were priests; but we do not know their gods.

A *šangû šanû*, or 'deputy priest,' was witness, on no. 485.

Other unnamed priests are referred to, on nos. 210, 255, 479, 603.

On K 1473 we have mention of a *ŠAL-RID*, or 'female priest.'

In the letters we have some further hints concerning priests in Assyria. On K 122, *H. A. B. L.* p. 41, we read of the priest of the house of the *MU*; *amêl RID bîti amêl MU*, the *amêl RID-SE GAR*, the *amêl ràb GAR-MEŠ*. These officials were, as the letter shews lower down, the priest of the house of the *amêl MU*, the priest of the house of the *amêl SE-GAR* and the *ràb akâlê* or 'superintendent of the meat offerings.' It is possible, however, that, for *RID*, we should read *rêd*. The same letter mentions the priest of Nineveh, Ašur-mât-iddin, who had slandered these persons and procured their deposition by Sennacherib, so that for 8 years after their death the temple of Ašur had been deprived of its revenues. Esarhaddon had evidently demanded an account from the writer, Akkullanu, with a list of those officers who had ceased to pay their dues to this temple in Aššur. The list sent is a long one, the *rabûte* named are the *bêl paḫâti* of Barḫalṣa, Raṣappa, Kalzi,

Isana, Tille, Kullania, Arpadda, Dikukina, the *rab karman*, the governors of Ḫalziatbar, Birtum, Arzuḫina, Arbaili, Guzana, and Rimusa. It is noteworthy, that the sons of the priests seem to be expected to succeed them, in the restored offices. The same scribe writes to the king about the priests of the city of U (?)...: *H. A. B. L.* p. 45. On K 1168, *H. A. B. L.* p. 47, l. 17, he refers to the priest of Sibitti (*VII-bi*), in Nineveh, whom he has sent in person, to the king, to tell his own story. Further he states that the name of the son of the priest of Šamaš is Zarî, son of Nâdin-aplu. It seems clear that this correspondence refers to an extensive revival of worship and the reinstatement of dispossessed or disendowed priestly families.

At the same time it makes it clear that a temple did not depend solely upon free-will offerings. We know, from many historical texts, that great benefactors left to the temples, lands or estates, charged with an annual payment to the temples. This must be regarded as in the nature of an endowment. The lands when so given by the king were charged with certain payments, in lieu of the duty they had owed to him or to the state. The charter, endowing the temple, therefore set free these lands from imposts and service. They were called, therefore, *zakû*, 'freed land.' A good example of this treatment is to be found in our no. 660 a, where Sargon, in refounding Maganubba as Dûr-Sargon, restored the endowments of the old temple of Ašur which Adadi-nirâri had bestowed. The former king had given certain lands to certain men, Kanûni, Aḫûlâmur and Mannu-kî-abi, on condition of their furnishing so many homers of *šillâti*, a sort of grain, to the *purki* of Ašur and Bau. Sargon accordingly took an oath of the inhabitants as to the situation of the old endowment and gave back field for field, to the living descendants of the old tenants, in all ninety-five homers of land, on condition of the supply of ten homers of *šillâti* as before. This land was freed, according to the usual formula, from any state requisition on its corn or grass. This 'quit-rent,' or regular payment to the temple, was its *sattukku*. Apparently the amount to be paid by the land was raised to fifteen homers of *šillâti*. The name applied to this class of tenants appears to be *amêl TU-bîti ili*. The ideogram *TU* means *erêbu*, 'to enter,' and its derivatives. Consequently *TU-bîti* has been read *êrib-bîti*, 'one who enters the temple'; as denoting a temple 'servant.' It is, however, not clear that these persons were temple 'servants,' only 'tenants' of temple lands, whose rent was assigned to the temple. *TU* may therefore be the ideogram for *irbu*, in the

sense of 'rent,' or 'income,' and the *amêl TU-bîti-ili* may really be only the 'rent payers of the temple.' For fuller discussion of the other points raised by this tablet see the comments on no. 660 a, and the references there.

Another example is given by K 3042; a tablet unfortunately very imperfect. It however enumerates quantities of various natural products, given to a temple, apparently. Thus a *ràb ašlaku* had to give a *ḳa* of oil, a *ràb ḫarbi* gave something else. The term used for confirming these gifts seems to be *irkusu*, used of Shalmaneser. The next section records other gifts, which apparently the 'palace gardener' had to give. This gift seems to be called the *UŠ-tú* of the donor. Next, a *ḳa* of 'wine,' from some city, a gift that Tiglath Pileser confirmed. Then comes a *PA* of 'meal' and a *ḳa* of 'drink,' and some more drink and two *ḳa* of *upuntu*: which the *ràb ḳatinnu* had to give; this Ludâri the *ràb-MU-bîti* of the city Parakka, and Simirra, appear to have taken away; *inašši*. This was what Sargon had confirmed. Then follows another full list of varieties of 'food and drink,' which Bappu, the *aba êkalli* 'of the king,' seems to have appropriated to Ištar. In another section, the gifts of Adadi-nirâri, son of Šamši-Adadi, are referred to as *ilkakate*, clearly in the sense of 'revenues.' Another endowment is dated in the Eponymy of Mannu-kî-Aššur, i.e. B.C. 795. Reference is made to the temple of Nabû, and to Gula; but I am unable to locate these temples themselves. I imagine that this tablet refers to some restoration by Esarhaddon (?) who as above, had demanded an account of what had been the former endowments, and from whom they were due; in order to set them on a more secure basis for the future.

The so-called 'Cultustafel' of Sippara, published v. R 60, 61 and admirably discussed by Dr J. Jeremias, in *B. A. S.* I. 268—292, is another very instructive example. Owing to the incursions of the Suti, the temple and its endowments had fallen into ruin and neglect. When at length the king Nabû-aplu-iddina restored the temple, he found a priest still in existence, by name Nabû-nâdin-šum, who was of the family of the first priest who had enjoyed the original donation. Hence the priesthood was clearly hereditary, and doubtless the payments, or certain of them, had been all along enjoyed by the family of the priests. Here again, the *amêl TU-bîti* are named and are distinct from the *šangû*, the *bârû*, and the *nâš paṭri*. It is not clear to me, whether they are actually temple 'servants' here, or only charged with supplying certain dues to the temple. It would be

digressing too far to enter here, upon all the points connected with the duties of the priest and his maintenance. It is however deserving of note, that there is no sign in our documents of an *ešru* or 'tithe' payable to a temple. The temple was doubtless, according to its popularity, supplied with free gifts, *nindabê*, but its chief support was its *ginû*. This regular endowment evidently included lands and estates, held under charter from some benefactor, who assigned them in perpetuity to a certain person or family, on condition of a fixed yearly payment settled on the temple by him. The person holding such an estate was, I think, the *amêl TU-bîti* of that temple, whether he was also the 'temple servant' or not. The regular income of the temple was its *sattukku*, whether derived from estates so held, or from dues paid by certain officials, by virtue of a royal order, or in some other established customary way. The 'Cultustafel' further prescribes what parts of the sacrifice were due to the temple, and what was the offerer's share. It is evident that the sacrifice was cooked. The temple here claimed the thighs, the skin, the rump, the sinews (?), half the belly, half the inwards, two knuckles and a great pot of broth. This share was evidently a special 'use' for this temple. Dr J. Jeremias points out the many Biblical and other parallels. I think that this regular share also constituted part of the *ginû*, but the expressions used are not decisive on the point.

152. The next official named in K 4395, v. 3 is the *amêl mu-še-kis*; this title does not occur in our documents. Delitzsch, *H. W. B.* p. 621 a, ascribes to *še* (?) the value *šár*, and so reads this as well as the next office *mušarkis*. Can the title be connected with the *ràb-šekisi*, in § 208?

The next official named K 4395, v. 4 is the *mušarkis*; Delitzsch, *H. W. B.* p. 621 a, gives this place, and also K 11, 12, but does not further define the office. In *B. A. S.* II. 27 he gave the meaning, 'executor, administrator.' Pinches in *Rec. Past.* p. 77 had given 'librarian.' The term appears in our documents occasionally; in no. 261, Ḫalmânu and Marduk-êreš are both termed *mušarkis*; in no. 34, Pišarmu, and in no. 105, Sin-ilai, bear the same title. In all these cases the title is spelt with *šar*, never *še*. In no. 415, the seller is said to be a *mu-šar-ki-su*, which settles the final consonant. In none of these documents can I discern any indication of the function of the *mušarkis*: but in no. 34 the succeeding witnesses are chiefly municipal officers.

For other official names derived from *rakâsu*, see § 176. The

plural occurs, on K 491, 6, *H. A. B. L.* p. 114, where Gabbu-ana-Ašur speaks of the *amêl mu-šár-kis-(meš)-ni* of his force, *idatûa*: a phonetic spelling is given on K 596, 4, *H. A. B. L.* p. 186, where we have *amêl mu-šar-ki-sa-a-ni.*

The aba.

153. As seemed necessary, the function of this official, in relation to the document he drew up, has been already discussed: § 59 ff. Here we may note that the *aba mât Aššurai*, in K 4395, v. 5, is followed by the *aba mât Armai*, shewing that the distinction was more than racial, it was functional. In fact, the former is the 'writer of Assyrian,' the latter 'the writer of Aramaic.' By his handiwork we recognise that the writer of most of our documents was an *aba Aššurai* and the *aba Armai* is often met with in our documents: nos. 179, 193, 207, 385, 448, 607, 778.

That even an *aba* could, at times, become a soldier seems clear from the letters of Ašur-riṣûa. Strassmaier, *S. A. V.* 880, gives his name as *rêš dupšarru ša šallat êkalli*, in B.C. 709. A year or so later, he is writing to Sargon as king, and to Sennacherib as crown prince about affairs in Armenia: *H. A. B. L.* pp. 139—143, pp. 394—396: compare the references to him by Sennacherib, *H. A. B. L.* p. 196; by Ṭâbšâr-Ašur, *H. A. B. L.* p. 91, and K 13111, and by Gabbu-ana-Ašur, *H. A. B. L.* p. 115. From K 1182, we may conclude that Ašur-riṣûa was either one of ten *bêlpaḫâti*, or their officer, in command over them.

On K 1473 we read of 6 (*ŠAL*) *aba* (*plu*) *Arma*..., that is, six ladies, who were 'Aramaic scribes.' There is no doubt about their sex, for the whole tablet has only women mentioned upon it.

The *ràb aba*, or 'chief *aba*,' is mentioned in no. 66, where we hear of his orchard or *kirû*; in no. 444, Ištar-šum-êreš, by name, probably the frequently occurring correspondent of the king; and no. 448, Ištar-šum-êreš, followed by Adadi-šum-uṣur, also often associated with him in the letters.

Whether the *aba* was really a member of an official caste or not, a very large number of these scribes are named in our documents. As might be expected the name of Nabû, the god of learning and letters, frequently occurs, compounded with other elements, in the names of scribes. Considering the many other names in the list, we may imagine the ability to write was widely spread. As each of our seven hundred documents was drawn up by one scribe at least, and

as many of them contain also the names of others who are *aba*, we may be sure the *aba* was a frequently occurring person in Assyrian life. Of his exact relation to the business documents I have written elsewhere; see § 59 f.

Here I give a list of the names of these scribes. References to the places where they will be found may be looked for in the Index of Proper Names.

Abagû
Abdâ
Abda'
Abu-ul-îdi
Abu-ina-êkalli
Azilu
Aḫu-nûri
Aḫi-râmi
Aḳru
Ammai
Asgudi
Aplai
Aplîa
Aplu-uṣur
Ardi-Ištar
Ardi-Nanâ
Ardi-Ninip
Ardûti
Ašur-abu-uṣur
Ašur-aḫê-êreš
Ašur-šarru-uṣur
Ašur-šum-uṣur
Aššurai
Atasuri
Atarḳâmu
Atinni
Bania
Banî
Barruḳu
Bêl-iddin
Bêl-lamur
Bulṭai
Gula-êreš
Dadî
Daulanu
Danduru
Deḫardu?
Dui
Disî
Zêrûti
Zêr-Ištar
Zêr-na'id
Ḫaldi...
Ḫalûa
Ḫalli-arraka
Ṭab-šâr-Nabû
Ilu-ibni
Ilu-idri
Ilu-li'
Iḳbi-Bêl
Ištar-bâbi-šallimâni
Ištar-dûri
Ištar-nadin-aplu
Ištar-šum-iddin
Kabtî
Kiṣir-Nabû
La-tubašanni-ilu
Mannu-kî-Ašur
Mannu-kî-Ḫarrân
Mannu-kî-Nusku
Mardukate
Marduk-zêr-ibni
Marduk-iddin
Marduk-šarru-uṣur
Marduk-šum-uṣur
Mêsu
Mušallim-Adadi
Mušallim-aḫê
Mušallim-Marduk
Mušêzib-Nabû
Nabûa
Nabû-aḫu-uṣur
Nabû-aḫê-šullim
Našuḫ.....

The mutîr pûti.

154. The title of this official appears in our list, K 4395, v. 7, in the two forms *amêl GUR-ZAK* and *amêl GUR pu-u-te*; see Delitzsch, *H. W. B.* p. 517 *a*. It is to be read *mutîr pûti*. The name means clearly the 'warder of the front,' that is, 'he who stands

to meet one approaching on the front.' He was therefore a sort of sentinel, a 'patrol,' in advance of the 'doorkeeper' himself. He was also a 'life guard' or 'body guard,' and it is reasonable to suppose was one of the personal household troops of the king. If, as we may surmise, from many passages, the king kept a sort of nucleus of the army, consisting of hired troops, perhaps foreigners, always about him; it seems not unlikely that the *mutîr pûti* was one. We must, however, note that the title is applied, in the letters, to persons who must have been military officers, actually on service in war, and certainly detached from the king's person. Whether, in the case of war, this select body of guards were individually set in command of battalions, or small bodies of troops, is not easy to decide. I believe it to be the case, but cannot now stay to discuss it: cf. *B. A. S.* 1. p. 203. Most of those *mutîr pûti*, who appear in our documents, are at home and clearly on a peace footing.

In our documents, by far the commonest way of writing the title is *amêl GUR-ZAK*, and in no place is the *GUR* written phonetically. The second element is written *pu-tú*, nos. 108, 113, 414, 446, 612, altogether eight times; *pu-ti* in nos. 19, 294, 428; and *pu-u-ti* in no. 117. That *GUR-ZAK* is equivalent to *GUR-pu-ti* is shewn by a comparison of nos. 19 and 20.

It is difficult to place this official relatively to others. In the witness lists he is associated most often with the *ràb kiṣir*. We may assume, as a rule, that an official 'of the king' took higher rank than the official 'of the king's son.' When therefore we find an official of the king's son below an official of the same title, we may assume the latter to be an official of the king's, although this may not be expressly stated. Further we may assume that a 'royal' official would be placed higher, in virtue of his relation to the court, than an ordinary official of the same title. Also we may neglect such places as no. 446, where the witnesses are grouped according to their places of residence. Further when, after a long list of witnesses, the date is followed by a few more witnesses, these being probably later additions, may not be placed in the order of rank and their consideration is to be omitted.

In virtue of the above suggested office, of guarding the approach to the palace gate, of which the *ḳêpu* may perhaps be taken as 'doorkeeper,' we expect the *mutîr pûti* to be below the *ḳêpu*. He is above the *ḳêpu* in no. 232 and below in nos. 50, 318, 675, 711. He is below such great officials as the *sartenu*, *sukallu*, *ràbšaki*, *tukultu*,

in no. 675, the *sukallu dannu* in no. 444, the *rab dandan*, *nâgir êkalli* and *sukallu šanû* in no. 485, the *tukultu* in no. 627. His relation to the *rab kiṣir* is less fixed, he is below that official in nos. 318, 325, 349, 358, 361, 414, 627, 675, 612 &c., but also above in nos. 325 and 349. In no. 361 he comes between the *rab kiṣir* and the 'deputy,' *šanû ša*, of the *rab kiṣir*. With respect to the *aba*, he is above in nos. 19, 20, 177, 193 and 232; also below in nos. 27, 161, 232, 318, 428 (?) and 675. With respect to the *šalšu*, he is above in nos. 19, 20, 325, 506, 612 and 627; below in nos. 19, 20, 50, 428 (?) and 627. He is below the *ša šepâ* in nos. 318, 400; but above him in nos. 325, 400. He is below the *rab naggaru*, in no. 161; above the *mâr šipri* in no. 50. He is below the *tamkaru*, in nos. 318, 711, and above him in no. 414. He is below the *daialu*, in no. 318; but above the *rab daialu*, in no. 612. He is below the *mukîl apâti*, in no. 27, and above him, in nos. 177, 675. He is below the *šanû ša rab urât*, in no. 318; above the *amêl MU*, in no. 27; above the *asu* in no. 349; above the *rab ḫanšâ* in no. 358; above the *rab alâni* in no. 627; above the *amêl ša pân dunâni* in no. 177; also above the *šaḳû*.

This gives him a very uncertain rank. It is quite likely, seniority, or relationship to the contracting parties had much to do with the relative places of these minor officials. The *mutîr pûti*, at home, was not much less a 'great man' than the *kêpu*, the *rab kiṣir* and the *aba*. He was probably a little above the *šalšu* and *ša šepâ*: and a trifle more important than a simple *mukîl apâti*. He takes rank on fairly equal terms with the *tamḳaru* and the *daialu*. As to the rarer officials, one can hardly decide from the few cases that occur.

An expression, which occurs in nos. 115 and 207, where we have both Ašur-ilai and Kiṣir-Ašur called *amêl rab-kiṣir mutîr pûti*, must be read in the light of nos. 211, and 470, where we have *amêl rab kiṣir ša amêl mutîr pûti*. He was 'a *rab kiṣir* of the *mutîr pûti*.' Then the question arises what does this mean? Was he a *rab kiṣir* over the *mutîr pûti*? or was he the *mutîr pûti's* inferior official? This is answered, I think, by the order in no. 444, *sukallu dannu*, *rab kiṣir ša mutîr pûti*, *rab aba*. Clearly *rab aba* was to *aba* much as *rab kiṣir ša mutîr pûti* is to *mutîr pûti*. Hence he was *over* the *mutîr pûti*. Hence we can hardly refuse to *kiṣir*, here, at any rate, the sense 'assemblage of.' As we shall see, in other cases, the *rab kiṣir* was over a *kiṣir*, i.e. a 'collection of persons or officials.'

As we shall see later, the *ša šêpâ* was either a class of foot

soldiers or other 'footmen,' and at any rate the *mutîr pûti ša šêpâ*, which we meet, in no. 177, as the buyer's title, was an official in charge of a body of men called *ša šêpâ*. The alternative is to take *ša šêpâ* as meaning 'lower,' which I think less likely.

On nos. 308, 309, 361 and 623, Zizî is said to be *šanû ša ràb kiṣir*, on no. 621 he is *šanû ša ràb kiṣir mutîr pûti*, that is, deputy of the *ràb kiṣir* of the *mutîr pûti*; but on no. 318, at the same date, is called *šanû ša ràb urât*. It is conceivable that we have not the same person in the two offices, but the suggestion is obvious. The *ràb kiṣir* is, as a rule, over the *kiṣir* of men called *mutîr pûti*, and he is also the *ràb urât*. Following up the hints above that the *mutîr pûti* was a 'sentinel,' a 'body guard,' and that the *urât* certainly are the 'stud of horses,' we are probably not far wrong in taking the *mutîr pûti* to be 'mounted guards,' and the *ràb kiṣir* their 'sergeant.' Further, there was probably an infantry troop, also called *mutîr pûti ša šêpâ*. That the sentinel on duty was always mounted does not follow and the door keeper would be his 'corporal.' That this body of men were also an 'intelligence department,' may perhaps follow from the fact that, on no. 253, Zizî appears as a *mutîr ṭêmi* or 'intelligencer.'

That this body guard furnished superior officers to local forces is likely enough. We frequently find, in letters on military affairs, that the *mutîr pûti* is in charge of a small body of men: but whether as an officer of theirs is less certain. Also he is evidently sent for the purpose of obtaining intelligence, or conveying the orders of the King, K 497, R 8, *H. A. B. L.* p. 158. Hence not improbably he could write the news he had to send, though he may have been supplied with a scribe for the purpose. At any rate he forwarded reports. So his rank with the *aba* or scribe is justified.

On no. 152, we read of a *mutîr pûti* of a city, Ašur-šarru-uṣur is said to be *mutîr pûti* of the city Bamatai. As the document records the advance of corn and a cow, from the property of the Crown Prince, to an inhabitant of that city, I imagine that the *mutîr pûti*, accompanied by two other inhabitants of the town, brought the intelligence of the requirement and witnessed the acknowledgement of the advance.

This class, of *mutîr pûti*, does not shew any marked signs of foreign extraction. If they are the King's body guard, either they are mostly native Assyrians, or they are thoroughly Assyrianised. The list of names is appended.

Adadi-ladin	Kabar-ilu	Ḳurdu
Ašur-ilai	Mannu-kî-ilai	Risai
Ašur-killâni	Nabûa	Šamaš-na'id
Ašur-šarru-uṣur	Nabû-aḫu-uṣur	Šamaš-rîmâni
Ašur-šum-ukîn	Nabû-erba	Šarru-êmurâni
Atâ-idri	Nabû-na'id	Šarru-ittia
Balâsi	Nabû-ḳatâ-ṣabit	Šarru-ludâri
Ululai	Nabû-riḫtu-uṣur	Šarru-ri'ûa
Zariḫu	Nergalâni	Šêpâ-Ašur
Zêrûti	Salamame	Šulmu-aḫê
Zizî	Sin-šarru-uṣur	Šulmu-šarri.

I may note in passing that in no. 34, Ilu-ḳatar and in no. 11, Nabû-natkil are termed *amêl GUR-PU*. It is possible, but not very likely, that this is an abbreviation of *amêl GUR-pu-ti*. I think a different office is meant, see under *amêl ḳurbu*: § 204.

The šalšu.

155. The next title on K 4395, v. 8, is written *amêl III-šu*, of which a synonym is given, on the same line, as *amêl III-ḪU-SI*. That there is no mistake about this identity is shewn, in our documents, by the duplicates, nos. 19, 20. In the one, Sinzêribni is called *III-šu*; in the other, *amêl III-ḪU-SI*. It is obvious to suppose that *III-šu* meant 'third,' and was read *šalšu*: but it is not at once clear in what sense this official was 'third'; nor who were the corresponding 'first' and 'second.' There is an official styled *šanû*, or 'second,' frequently named in our documents; see § 210. When this term is used in connection with some other title, as *sukallu šanû*, the 'second *sukallu*,' it denotes a lower rank than the simple title; when used in the connection *šanû ša amêl ràb kiṣir*, it means 'second' or 'deputy' of the *ràb kiṣir*. The term *šanû* however is also used absolutely, 'the second man,' and so in the case of *šalšu* the term is nearly always used absolutely; so that we can not discern any 'second' to refer his rank to. In no. 422, where the vendors of a certain city are stated, evidently in order of rank, the highest official is termed the *bêl paḫâti*, then follows the *šanû*, then the *šalšu*. Here, then, the meaning of the term seems certain, he was a municipal officer, 'third' in rank, in a city corporation.

This connection with a city seems supported by no. 261, where

we have a *šalšu* of Nineveh; by no. 625, a *šalšu* of Laḥiru; by no. 469, a *šalšu* of Kar-Nergal; by no. 50, a *šalšu* of Aššur; and by no. 422, a *šalšu* of Maganuba. We may fairly assume all these cities had their *bêl paḥâti*, or *šaknu*, to take first rank, and a *šanû* to follow. We can verify this assumption for Nineveh, Laḥiru and Maganuba; see under *šanû* and *šaknu*, § 210 and 177. We may therefore deem the reading *šalšu* and the meaning 'third in municipal rank,' certain in many cases.

There are however many other cases where this meaning seems out of place. We read of a *šalšu dannu* in nos. 60, 372, 408, 418, 429. What can be the meaning of *dannu* here? If it raised his rank above a simple *šalšu*, it would make him a *šanû* and if it only distinguished him from the *šalšu šanû*, or 'deputy *šalšu*,' named in no. 179, would it not have been simpler to replace the latter by some term meaning 'fourth in rank'? Many important persons had their *šalšu*, the King in no. 60, the Queen Mother in no. 428, the Queen in no. 612, the Crown Prince in nos. 60, 273, 444, 548 &c., the *ràb-BI-LUL* in no. 330, the *amêl ša êli bêtâni* in no. 260, the 'palace' in nos. 127 and 625. As many of these persons also had their deputy or *šanû*, q.v., we need feel no difficulty about their *šalšu*. The case is rather different, with the *amêl A-RIT* in no. 324, the *mukîl apâti* in nos. 352 and 476, the *ràb kiṣir* in no. 352, and most peculiar of all, the *šanû* himself in no. 253. Private persons also had their *šalšu* in nos. 71, 201, 494.

156. While therefore the meaning of 'one occupying the third place' remains possible and was evidently original, we cannot help suspecting that the term had lost this literal significance or it had become somewhat obscured. Besides we have left the ideogram *ḪU-SI* quite unaccounted for. It occurs in several other connections, which seem very remote from our present, *III-ḪU-SI*.

Thus on K 2016 a, Col. I. 2, we find *IṢ-LI-ḪU-SI-UM* read *li'u*, and hence it is clear that on III. R. 64, 32 b, *kî pî IṢ-LI-ḪU-SI-UM* is to be read *kî pî li'ê*, as Del. *H. W. B.* p. 366 b gives. This *li'û*, Delitzsch gives as 'tablet, document,' clearly not of clay: possibly 'wood,' or some vegetable writing material. Also *IṢ-ZU* is clearly some sort of tablet, for in II. R. 36, 11 we have *kî pî duppâni IṢ-ZU-MEŠ* and in V. R. 18, 40 we have *kî pî duppâni IṢ-ZU-MEŠ*. Therefore *IṢ-ZU* is 'tablet,' also clearly not 'clay,' possibly wood, certainly some vegetable substance. Now *ZU* is an ideogram for the verbs 'to know,' 'to learn,' and *dapu* with their

derivatives. It is therefore likely that *IṢ-ZU* is the 'vegetable tablet that gives one to know.' Brünnow, no. 140, suggests that it may have been read *zû*. But we know that, at least in proper names, it was read *li'u*, though with a different meaning, possibly, from 'knowing.' Hence there seems good reason to suppose that *IṢ LI-ḪU-SI* and *IṢ-ZU* both are to be read *li'u*, and mean a vegetable writing material, or a leaf of it. Professor Sayce has suggested that we have here a reference to the use of papyrus. It is however certain that wooden tablets were used as well. Now this all suggests strongly, that *LI* is properly 'the *li'u*,' and *IṢ* and *ḪU-SI-UM* the material. It is likely that *ḪU-SI* originally made one sign, read *a*, the whole group would then be read (*iṣu*) *le-a-um*: cf. *re-a-um*, 'shepherd.' The duplicate to K 2016 a viz. K 4338 a, gives *IṢ-LI-ḪU-SI-UM* as being read *šú-u'*, and as that means 'the same,' the scribe evidently regarded *IṢ* before *LI*, and *ḪU-SI-UM* after it, as mere determinatives, unpronounced. Hence, without doubt, *ḪU-SI-UM* stands for the particular sort of vegetable substance, of which a material for writing was made. Now *ḪU-SI* was read *kiššatu*, Brünnow, no. 2064, and *šu* also is read *kiššatu*, Brünnow, no. 10832. Hence we might conjecture that *III-šu* and *III-ḪU-SI* were the same in virtue of their common value *kiššatu*. That *šu* is usually *kiššatu*, in the senses given to that word, in Del. *H. W. B.* p. 360 b, does not exclude its being also used for another word *kiššatu*, and *ḪU-SI* is not used as ideogram for that *kiššatu*. Hence while the *šu* in *III-šu* may be merely a phonetic complement, indicating the reading *šalšu*, we may also conceive it to represent *kiššatu*. It would be quite tolerable to suppose *šu* and *ḪU-SI* both meant *kiššatu* in the sense of 'host' or 'army,' giving us the meaning, 'third in rank in the army,' or 'belonging to the class third in rank.' We have, however, no instance of *ḪU-SI* used to mean such a *kiššatu*, and we have seen reason to suppose it represents a 'vegetable substance.' Hence, I venture to think, *kiššatu* here is the name of some reed or bush. Winckler has long contended that *šar kiššati* originally meant 'king of Ḥarran.' It was over the 'reed beds' of Ḥarran, that Esarhaddon saw the moon standing, when he had his celebrated dream, on his way to Egypt: see K 2701 a, in Winckler's *Samml.* p. 9. The expression *ḳâni*, or *ḳanni*, *âl Ḥarran* is frequent in the Census tablets: cf. nos. 91, 331, 472. Was Ḥarran called *kiššati*, from its reed beds, or wooded lands?

157. Now *IṢ-ḪU-SI*, when referred to a ship, is read *ḫinnu*, on K 4338 a, VI. 23: and this is perhaps the 'hull' or 'hulk of the ship.' As the boats on the Euphrates and its canals were probably made of basket work, there is every probability that *ḫinnu* denotes a hollow vessel of wicker work. Hence there may be reason to suppose that *III-ḪU-SI* can be read *šalšu ḫinni*. I imagine that *ḫinnu* was a term applicable to any basket or wicker work construction.

The tablet, K 2014, gives *IṢ-ḪU-SI-PIN* and *IṢ-ḪU-SI-DUG-GA-PIN*, the Assyrian reading of both beginning with *in*.... I take it, these are baskets, of different sorts, used by the *PIN*, or 'cultivator.' Here also, I believe, *IṢ-ḪU-SI* denotes 'basket work.'

Now in nos. 284 and 537, Nabû-balaṭsu-iḳbi is termed an *amêl IV-ḪU-SI-ni-šu*. Here we must note, that in one place we have *šu*, in the other *šú*. Hence *šu* must be the possessive pronoun, 'his.' It can have nothing to do with *kiššatu*. Of course the *IV* here could be read *ša* or *šakin*: but when we compare *III-ḪU-SI* and *II-ḪU-SI* (or *II-SI-šu* on no. 115), there seems no doubt that we have a true series *II-ḪU-SI*, *III-ḪU-SI*, *IV-ḪU-SI*. Moreover, we have here the phonetic complement *-ni*, suggesting that we are to read *ḪU-SI* by something ending in *ni*. Hence I read the series as, *šanû ḫinnišu*, *šalšu ḫinni*(*šu*) and *rebû ḫin-ni-šu*. What then was this *ḫinnu*, in which these men were second, third and fourth? Clearly the chariot. We see on Assyrian sculptures, usually three, but occasionally four, men in the chariot. Usually, the *bêl narkabti*, or 'master of the chariot,' has with him a driver, the *mukîl appâti*, and a third man, to hold the weapons. Hence I hold that *šalšu ḪU-SI* is this third man in the chariot. This *ḫinnu* is properly the 'car,' or 'well' of the chariot, and may originally have been made of basket work. And now the question remains, was *kiššatu* also a name for the 'car' of the chariot?

At any rate, the use of *ḪU-SI* here is explained at last: and we may await confirmation of the conjectures as to its use in the meaning 'reed,' or 'withy.' Perhaps some 'osier' or 'willow' plant may be the real original: and some 'bark' or other may be the writing material of the *li'u*.

158. We may now note some further variants in the way of writing *šalšu*, as an official title. The commonest writing is *III šu* (about 60 times) but *III ḪU-SI* occurs very often (over 40 times). The phonetic spelling, *šal-šu* occurs in nos. 244, 548 and probably

in no. 404. Some of the other varieties are rather suspicious. Thus, in no. 185, we have *III-ḪU-SI-šu*; in no. 215, *šal-ḪU-SI*; in no. 592, *šalši-ḪU-šu*; in no. 185, *III-šu-ḪU-SI*: four times in no. 115, and twice in no. 418, we have *III-SI-šu*; and in nos. 352 and 476, we have *III-SI*. Of course the *šu* at the end of the title, when it means 'his,' refers to the master of the chariot, whose third man the *šalšu* was. The replacement of *III* by *šalšu* and *šalši* is all right, confirming our reading of the numeral; but the disappearance of *ḪU*, in one place, and *SI*, in another, suggests scribal error or the confusion of one form with another. In no. 427, appears the strange variant *III-su*, which I consider an error for *ŠAL-su*, to be read *raksu*. It may however point to some other word ending in *su* of which *ḪU-si* represents an oblique case; perhaps *ḫusu* or *paksu*: which would be then a synonym of *ḫinnu*. It is possible that *šalsu* is a bye-form of *šalšu*.

159. The rank of the *šalšu* is not easily stated. He is, of course, below the greater officials, such as the *sukallu dannu*, *sukallu šanû*, *sartênu*, *tukultu*, *nâgir êkalli*, *ràb bîti*, &c. His position with respect to the *mukîl apâti* is, below him in municipal affairs, as in no. 470, and in other cases more often below than above. The uncertainty seems to be caused by the fact that both *šalšu* and *mukîl apâti* are often called *dannu*, and then would rank higher. This higher rank is often expressed by position in the list instead of being stated. Other cases where the *šalšu* takes a higher position than is due to his rank may be out of respect to his master. So too he is about on an equality with the *aba*, but as an official of a city above him. Of course he is below the *šanû* and above the *rebû*. He is above the *ràb kiṣir* about twice as often as below, he is six times above the *ḳêpu* and twice below, also five times above the *ràb ḳêpâni*. The *mutîr pûti* is below him about six times, above him three times. He is above the *ràb alâni* three times, below him once. He is above the *ša šepâ* as often as below him. For the rest he is uniformly above the *ḫazânu*, the *rakbu*, the *rakbu šepâ*, the *ràb kiṣir* of *mutîr pûti*, the *mâr šipri*, the *šanû* of *ràb urâti*, the *rakbu GAB-MEŠ*, the *šakin šarri*, the *malâḫu*, the *muribânu*, the *amêl LUL*, the *ràb zammari*, the *raksu dalâni*, the *naggaru rabû* and *naggaru*, the *šelappai*, the *tamkaru*, the *asû*, *the ràb bârû*, the *amêl MU*, the *mutîr ṭemi*, the *šaknu* of the *bîti šanî*, the *nappaḫu*, &c. In fact, while below the greater state officials, he is above the professions, trades and upper servants. In a very large number of

cases he heads the list of witnesses, as in nos. 5, 20, 50, 115, 116, 185, 230, 247, 249, 312, 322, 472, 618, &c. In some cases we have reason to suspect that a *šalšu dannu* is really meant, as others bearing the title *šalšu* occur lower in the list. The particular predilections of the great *mukîl appâti* Rîmâni-Adadi may have had something to do with the order of some lists. That one who rode third in the King's chariot should have high position and authority need not astonish us, when we compare the Heb. שָׁלִישׁ.

160. A list of the names of those who occupied this office may be useful for reference.

Abba-Aguni
Abu-ul-îdi
Adadi-abu-uṣur
Adadi-bulliṭ
Adadi-raḥimu
Aḥu-lâmašši
Aḳru
Aplîa
Arba-ilai
Ardi-Bêlit
Ašur-ukîn-aḥe
Ašur-erba
Ašur-ilai
Ašur-rîmâni
Atueḥu
Babilai
Bêl-danân
Bêl-dûri
Bêl-Ḥarrân-šarr-uṣur
Bêl-šarr-ibni
Bîr-Ammai
Dûr-na'id
Uarbis
Usanâni
Ereš-ilu
Zagaga-erba
Ḥarmaṣa
Ib-ukîn
Ilu-nâdin-aplu
Išdi-Ḥarrân
Ištar-šum-ereš
Kiṣir-Ištar
Kitti-ilâni
Lategi-ana-Ištar
Mannu-ka-da
Mannu-kî-Ištar-li'
Marduk-bêl-uṣur
Marduk-šarru-uṣur
Mašḳaru
Mate'u
Mattallai
Murâšû
Nabû-dûr-uṣur
Nabû-li'ani
Nabû-šarru-uṣur
Nergal-šarru-uṣur
Saeru
Si'ḥari
Sin-ašarid
Sin-zêr-ibni
Rîmâni-Adadi
Šamaš-šarru-uṣur
Šamaš-šêzib
Ša-Nabû-šû
Šapi'
Šâr-Ištar
Šarru-êmurâni
Šarru-ibni
Šulmu-bêl-lašme
Tarditu-Ašur
Tašpuru.

161. As the derivation above given depends largely upon the real sense of *ḥinnu*, I may add here that Meissner, *Suppt.* p. 39, gives, from K 4574, the word *ḥinnu* as meaning *Strick.* It is associated there with several words known to mean 'bands, strings &c.' Here however the word is really written *GI-ḥi-nu* and *giḥinu* is possibly meant. Meissner however takes *GI* as the determinative of '*reeds.*' Then *GI-ḥi-nu* is 'a reed used for making cords or ropes.' This is consistent with some sort of withy or osier. In

Strassmaier's contracts, the *šam ḫinnu* is often named, see Muss-Arnoldt, p. 325: it is a vegetable of some kind. The reed *ḫinnu* is also often mentioned: and *ḫin* appears to be used in the sense of 'crop' or 'harvest.' This may be from the baskets in which the 'crop' was gathered and carried. If there be a connection with the Hebrew, הִין, the measure *Hin*, used however for liquids, this may be preserved in the Assyrian *in*..., of K 2014, referred to above, § 157.

The next title on K 4395, v. 9 is the *amêl BAR-EN-NU*. This title does not occur in our documents.

The *apil šipri*.

162. The next title on K 4395, v. 10 is the *amêl A-SIK* or *amêl A-ŠI-PIR*. This is undoubtedly to be read *apil šipri*. Another form, mentioned above, as *mâr šipri*, but written *amêl A-KIN* occurs in our documents and can also be read *apil šipri*. This form is given in no. 62, where we have the *apil šipri* of the *ràb bîti* and *apil šipri* of *bît bêlêšu*: see § 149.

The form *amêl A-SIK* is common. There is no doubt it primarily means 'son of the message' or 'messenger.' He evidently took the place of an 'errand-boy,' or in a more dignified way, 'emissary.' As a rule, however, he seems to have been acting as an 'agent.' The equivalent title *mâr šipri*, written *TUR šipri* is found in the historical texts, see Del. *H. W. B.* p. 683 a. Sayce gave in his Tell el Amarna Tablets in *P. S. B. A.* vol. x. p. 499, no. vi. 4, the curious spelling *(tu)-ur-šip-ri*. Did the scribe mean *TUR*, or was he thinking of *mutîr ṭêmi*? In the later Babylonian contracts some interesting variations arise. Thus *Nbd.* 1050, *Cyr.* 44 gives a plural *mâr-šiprâtum*; *Nbd.* 342 gives the variant *amêl KIN-GIL-TA*, and *Nbd.* 350 also *amêl KIN-GIL-A-MEŠ*. A female 'messenger' is called *mârat šipri* in *Cyr.* 177. A phonetic spelling *mar-šipri* occurs in *Nbd.* 562. Lastly *Rm.* 77 in *P. S. B. A.* ix. p. 313 gives *a-mi-li'-iti tur-a šipri*, but see *H. A. B. L.* p. 437.

Many households had their *mâr šipri*, a *bêl piḫâti* of Kalḫa in no. 225, another in nos. 48, 49, the *bêlit bîti* in no. 50, Nergal-ašarid in no. 427. In no. 469, R 7, if my reading is right, we have a servant of the *apil šipri*. In no. 494, R 8 we read of a *ràb-kiṣir* of the *apil šipri* of the Queen. In no. 337, R 7 we have an *apil šipri* of the Queen or consort of the Crown Prince. In II. R. 39, 47 g—h, we have *mâr šipri* given as a synonym of *rakbu*, which follows this title on K 4395, v. 11.

A list of names of these confidential officials follows.

Adadi-abu-uṣur	Urdute	Marduk-iddin
Aplu-šêzibâni	Ilu-mukîn	Nabû-kêniš-dugul
Bêl-Ḫarrân-ittia	La'iti-ilu	Sanân.
Dudûa	Mannu-kî-Arbailai	

The *rakbu*.

163. The next title on K 4395, v. 11 is written two ways, *amêl* (*iṣu*) *MÀR* and *amêl bêl* (*iṣu*) *MÀR*. Now (*iṣu*) *MÀR* is given by Del. *H. W. B.* p. 620a as *narkabtu*, 'chariot' or 'waggon.' The *amêl* is therefore certainly a *rakbu*, whence *ra-kab*, in II. R. 39, 47; see also Del. *H. W. B.* p. 619b. The variant is of course read *bêl narkabti*. Both mean 'charioteer,' but also as seen above, 'messenger.' The form *amêl* (*iṣu*) *MÀR* usually occurs in our documents, but sometimes the determinative (*iṣu*) is omitted, e.g. nos. 211, 325, 349, 510, 519. On no. 308 we read of a *rakbu ràb-kiṣir*, i.e. the *ràb-kiṣir's*, 'charioteer.' So the *ràb MU-GI* on nos. 24, 25, the tartan on no. 261, the Crown Prince's *ràb šakê* on no. 325, the palace on no. 469, the Crown Prince on nos. 312, 548, and the King often, have their *rakbu* named.

A special sort of *rakbu* occurs on no. 177, the *rakbu nakanti*; cf. also 277 R 6. Perhaps we may equate this term to the *amêl iṣu MAR-TAG-GA* on no. 435. Two other divisions of the *rakbu* occur often. The first is the *rakbu ša šêpâ*. Here the determinative (*iṣu*) is omitted, six times in no. 207, but occurs in nos. 150, 236, 354. In all these places *šêpâ* alone is written. In nos. 455 (bis) and 612, we have *amêl* (*iṣu*) *MÀR šá šêpâ*, in no. 510 the (*iṣu*) is omitted and the plural sign added after *šêpâ*. It is to be noted that the *rakbu* comes before the *rakbu ša šêpâ*. Now while *šêpâ* may and very likely does, indicate 'infantry' in some cases, 'a charioteer of the infantry' seems unlikely but not impossible; see § 225. Also *šêpâ* does often change with *KI-TA* in the sense of 'below'; so, I think, we might understand the *rakbu ša šêpâ* as a lower class of charioteer.

The second class is the *rakbu GAB-MEŠ*. The meaning of *GAB* here is not clear. One may suppose it a phonetic complement to *amêl* (*iṣu*) *MÀR* and suspect a reading *ra* for that complex: or more likely regard *GAB* as the ideogram for *tarâṣu*, 'to direct, guide.' The stretching out of the hands in driving is very marked.

Possibly this was the 'driver of the chariot,' the *ša šêpâ* then may be the man who stands behind the proper master of the chariot, the *bêl narkabti*, and holds the weapons. He would be then the *šalšu* or 'third man in the chariot,' and there may even be a fourth called *amêl IV-HU-SI-šu*; see above under *šalšu*, and compare Heb. שְׁלִישׁ. Carrying on our parallel we shall see in *GAB-MEŠ*, a name perhaps for 'the reins.' We may perhaps even compare *gappati* in *Z. A.* VI. col. 4, 9, p. 291; which there seems to be some garden tool.

It is not certain that these special sorts of *rakbu* are always distinguished in our documents. It will be seen that the lists below of the *rakbu*, *rakbu ša šêpâ* and *rakbu GAB-MEŠ* have several names in common. Hence it seems almost futile to attempt to fix the rank of this class.

164. A list of names of persons who are called *rakbu* in our documents may serve some purpose later.

Abdûnu	Zêr-ukîn	Na'id-Adadi
Aḫu-amur	Ḫarḫandâ	Silim-Ašur
Aḫu-lâmašši	Išdi-êkurri	Sirua-ilu
Aḫê-erba	Išdi-Nabû	Ṣalmu-aḫê
Anma-bâni	Kusai	Ḳurdi-Adadi
Ašur-killâni	Laḳisi	Šamaš-erba
Ašur-mukîn	Mannu-kî-Arbaili	Šâr-Nergal
Bêl-aḫu-iddin	Mannu-kî-Ḫarrân	Šarru-ibni
Bêl-šarru-uṣur	Nabû-šum-iddin	Šarru-ludâri
Ušanni-ilu	Nabû-tiriṣ	Šulmu-aḫi.
Zabînu		

The following persons are styled *rakbu ša šêpâ*.

Arbailai	Um-xx(kan)-ai	Marduk-šum-iddin
Bêl-aḫêšu	Ḫambaḳu	Nabûai
Bêl-balaṭ	Mamê	Šum-ukîn.
Bêl-Ḫarrân-šarr-uṣur	Mannu-kî-Arbaili	

The names of the *rakbu GAB-MEŠ* are as follows.

Aḫu-amur	Mannu-kî-Ḫarran	Na'id-Adadi
Ašur-bêl-danan	Nabû-zêr-iddin	Sirua-ilu
Dari-šarru	Nabû-mušezib	Ṣalmu-ušḫusanni.

The alternative title *bêl narkabti* occurs on no. 364, Bibî, on no. 525, Ištar-nâdin-aplu and on no. 632, unnamed. An interesting

list of parts of a chariot is given by K 2026, where we have *uppu narkabti*, *kumaddu* (?) || , *nîru* || , *sikkat nîri* || *suddinnu* || , *ṣimittum* &c.

The next title on K 4395, v. 12 is given as *amêl NU-(iṣu) SAR*. This has already been dealt with; § 144. In a similar way, other titles are given in two separate connections. All the same, the 'gardener' or 'planter' seems out of place here, and I cannot help suspecting that *amêl NU (iṣu) MÀR* is really meant. That would be a new form for the *rakbu*; it is not otherwise known to me.

The *tamḳaru*.

165. This name is given in K 4395, v. 13, as *amêl tam-ḳar*. He is the 'merchant,' or 'broker': certainly one who buys to sell again. K 245, Col. II. 8 speaks for *tam-ka-ri* against *damkaru*, in *dam-ga-rum* the *g* is due to assimilation. The part which the *tamḳaru* played, in buying 'crops on the land &c.,' is well illustrated by Meissner's *Altbabylonische Gesetze B. A. S.* III. p. 493 ff. In our documents the title appears, usually written *tam-ḳar*, with the signs given by Brünnow, nos. 11105 and 6531; but once in no. 229 R 4, we have (*UD*=) *tam-ḳar*. In our documents the *tamḳaru* usually appears as a witness. Oppert *Doc. Jur.* 192 &c. renders *artifex*, 'artisan.' In no. 261, Bakilia is a '*tamḳar* of horses,' in no. 357 we have the Queen's *tamḳar*. Local *tamḳari* are named; in no. 357, of Kiskai; no. 50, of Kakzi.

The following list of names may prove useful.

Adadi-iddin	Zizî	Mati-ilai
Adadi-rabâ	Ḥadasai	Suḫurâmû
Adî or Idî	Ḥaldi-rimâni	Pulḫušêzib
Aplîa	Ḥalli...	Ṣalmute
Bakilia	Ilti-ur (?)	Raḥimi-šarru
Bêl-nûri	Immanû	Rîmâni-Adadi
Bîr-Šamaš (?)	Išdi-Sibitti	Rîmâni-ilu
Ginai	Ištar-paia	Šamaš-nammir
Dadu-erba	Le'iti-ili	Šimânu
Erba-ilâni	Maliktu	Šumma-ili

It is interesting to note, among these names, that of Rîmâni-Adadi, perhaps the same who was afterwards the great business agent of the King's, the *mukîl apâti dannu ša Ašurbânipal šar mât Aššur*. Quite a number of these names wear a foreign aspect.

On v. R. 16, 22 the ideogram for *tamḳaru* is *SAB-GAL*, and it is followed by *SAB-TUR*, which is rendered *šamallû*. The word may be a sort of '*rebus*,' since *DAM* means 'wife,' or 'woman'; so *damḳar* would be '*Frauenkauf*.' So Jensen; cf. *Z. A.* VI. p. 349. The influence these traders had acquired is shewn by the fact that in no. 434 we have a mention of the mina of the merchant, *MANA ša tamḳari*. See later, in the chapter on the Money System.

166. The next title in K 4395, v. 14 is *amêl mubarrimu*, which simply means 'a weaver,' or 'spinner' possibly. See Del. *H. W. B.* p. 186 b. What the reason for putting him here can be is not clear. This title does not occur in our documents.

The next title in K 4395, v. 14 is *amêl muṣappiu*. I am inclined to connect this with the Talm. צִיפָּא, 'a mat,' and not with the צפה which Meissner gives, *Supp.* p. 82 a. A 'matmaker' is akin to 'a weaver.' The title does not occur in our documents.

The next title on K 4395, v. 15 is written *amêl LID-ZADIM*, possibly an ideographic writing of the last, or the next: compare also *sasinnu* later; § 200.

The next title in K 4395, v. 16 is *amêl ṣârip SU-GAB-ŠI-A*. This clearly is a 'dyer' of some sort. The *SU-GAB-ŠI-A* remind one of the *SU-gabšû* of *Nbd.* 928. Delitzsch, *H. W. B.* p. 705 a. reads this *taḫšu*. It seems clear, from the passages there quoted, that the word denotes 'sheep-skins.' The process referred to may perhaps really be that of 'tanning,' as *ṣarâpu* seems to include many processes of manufacture. The title does not occur in our documents. According to K 954, the price of 301 *SU-GAB-ŠI-A-MEŠ* was ten minas forty shekels of silver at Kalḫu; and 3 *SU-GAB-ŠI-A* fetched six and a half shekels of silver in the great gate of Ḥarran.

The next title in K 4395, v. 17 is *amêl ša eli ḳanâte*. I am inclined to connect this *ḳanâte* with the *ḳannu* given in Meissner *Suppt.* p. 85 a. There a number of cases of *ḳannu* are collected. The form *ḳâni*, simply spelt *ḳa-ni*, is common in the Census tablets, e.g. *ḳa-ni âl Ḫarrân*, which certainly means 'in the district of Haran.' As the *ḳêpu* was probably over the *ḳêpâni*, so this official seems likely to have been over the districts known as the *ḳannu* or *ḳânu*. This title does not occur in our documents. There is perhaps a suggestion, in its position here, that the *ràb kiṣir*, who comes next, is the person who is over the *ḳânu*. If so the *ḳânu* is the local correlative of *kiṣru*, the territorial district from which the *kiṣru* of men was drawn. Whether this word *ḳâni* is really connected with

the *ḳanû*, meaning a 'reed,' is not clear: but Delitzsch, *H. W. B.* p. 588 b, connects the title *ša êli ḳanâte* and the *ràb ḳanâtu* of *Str.* III. 421, 4 with *ḳanû*.

The ràb kiṣir.

167. The next title in K 4395, v. 18 is the *ràb kiṣir*. On the meanings of *ḳaṣâru* and its derivatives see Del. *H. W. B.* p. 590 b and following pages. The *ràb kiṣir* is given on p. 591 b as a military title, one who was over a *kiṣru*, a 'major,' &c. Here *kiṣru* is taken to denote probably a single definite company or body of men; a 'battalion.' The numerous passages in the letters, where it occurs, admit of such a meaning as a rule, but it shews how thoroughly military was Assyrian society when we find so much ordinary business in the hands of 'majors,' 'colonels,' 'sergeants,' 'charioteers,' 'chariot-drivers,' 'foot-soldiers,' &c. In fact every military office seems to have had a civil office which was its other side. To judge by the prevalence of military officers in our documents we might imagine Nineveh a garrison town. Certainly at this period Mars was in the ascendant in Assyria. At the same time, we may run a risk, in not allowing for the dual aspect of an office. In old Babylonian times *kiṣru* was 'hire' or 'pay.' The *kiṣru* may have been a 'hired troop' and the *ràb kiṣir* as much a 'paymaster' as a 'major.'

In no. 276 R 5—8 a *ràb kiṣir* is followed directly by four men, each of whom is called an *amêl kiṣir šarri*; in no. 251 R 2 the same term is apparently used. In no. 21, R E 1, Nabû-šarr-uṣur is called an *amêl kiṣir šarri*, and in no. 58, R 16 Zabînu is called an *amêl kaṣir*. It is hardly likely these are all mistakes for *ràb kiṣir šarri*, &c. Hence we may be fairly certain that there was a body of men, each of whom had the title *kiṣir*, and that the King had a special *kiṣru* of his own: cf. the *kiṣir šarrûti*, Winckler's *Forsch.* 1. p. 406. The *amêl kâṣir* may be distinct from the *amêl kiṣir*.

As a consequence of this division of the available adult population into a number of *kiṣru*, it seems that a *ràb kiṣir* had certain rights over the persons of the men who formed his *kiṣru*. Thus in no. 164, it appears that one Ḥanî was condemned to be held, with his belongings, as a security for a certain payment. It is expressly stipulated that, until that payment has been made, his *ràb kiṣir* shall have no power over him. He was therefore bound to work

out his debt, and till his debtor was satisfied his superior officer could not claim any military service from him, or his. So in no. 446, an estate, a plantation and serfs are sold, and the buyer is expressly exempted from the claim of the *ràb kiṣir*. Obviously that claim was one upon the labour of the serfs: but it is local in its bearing. It need not be hastily assumed that this was a claim exclusively for military service. It may also have been for labour on public works, the *corvée* of later times, probably the *arad šarrûti* of the later Babylonian days. Compare further nos. 498 and 509.

The term *kiṣru* is certainly used in a local sense. Thus K 9921 enumerating a list of *bêl piḫâti*, each over some one city, begins with Aḫu-ilai *bêl piḫâti* of Ninûa, next Nabû-šarr-uṣur *bêl piḫâti* of Nineveh, *kiṣir Sinaḫerba ešši*: we have here two persons, *bêl piḫâti* of Nineveh, one clearly of Nineveh proper, the other of the new *kiṣru* of Sennacherib. We can hardly refuse to admit that this was a certain district of Nineveh, called after the King, who did so much for the city, his 'new quarter.' That the *amêl kiṣir* formed a numerous class follows from 82-5-22, 112, where 300 *amêl KA-SAR* are named at one time. On K 660, *H. A. B. L.* p. 77, we learn that the King had raised Tabalai, son of Bêl-Ḥarran-aḫu-uṣur, to the *amêl ràb kiṣirûtu*.

168. The words after the date on no. 64, inadvertently omitted by me, are *kiṣir Aššur-aḫ-iddin šar mât Aššur*. This can perhaps be the title of the Eponym, Nabû-bêl-uṣur, of B.C. 672—1. He was however the *šaknu* of Dûr-Sargon. It is quite as likely to be an indication that the property pledged lay in the district or *kiṣru* of Esarhaddon. This was perhaps another suburban quarter of Nineveh. In no. 694, R 3 we have *NAM-kiṣir*, which of course may be a variant to *ràb kiṣir*, or it may be the remains of *bêl piḫâti* of *kiṣir*, so and so. In the latter case we have another indication of a local use of *kiṣru*. In K 468, *H. A. B. L.* p. 113, the King says 'the people who are set down in the note, to wit, the *kiṣir ša aḳṣurûni* and gave thee &c.'; shewing that the *kiṣir* here was a collection of soldiers.

The renderings of *ràb kiṣir* which have been proposed do not greatly commend themselves. Professor Oppert, *Doc. Jur.* p. 192, gives *princeps divisionis*, which is very close to what seems to be the real meaning, but on the next page he has *le grand juge*. In the Corpus *Ins. Sem.* p. 24, he gives *publicanus*. Dr Peiser more consistently renders, *Säckelmeister*; K B IV. p. 150 and *passim*.

169. The contention, that the *ràb kiṣir* was exclusively a

military officer, is rather weakened by the fact that a number of officials had their *ràb kiṣir*.

The King's *ràb kiṣir* is named in nos. 252, 276; the *ràb kiṣir ša mâti*, i.e. 'of the palace,' in nos. 284, 625; of the Crown-Prince in nos. 312, 621, 211, 308, 233, 345, 115, cf. 207, 470; of the *mutîr pûti* of the Crown Prince in nos. 207, 470; some *ràb kiṣir ša šêpâ* in no. 235, cf. 470; a *ràb kiṣir* 'of the weavers' in no. 59; of the *mâr šipri* of the Queen in no. 494; of a *mutîr pûti* in no. 115. In the case of the weavers, we may regard it as likely that they occupied a separate quarter of Nineveh, which would be called the *kiṣru išparê* perhaps. This quarter had its *ràb kiṣir*, who would probably have claims on its population for a quota of men for the army, public works, &c. It is, however, not likely that the *mâr šipri* of the Queen had a *kiṣru*, as only one such person is indicated. Hence the *ràb kiṣir* must have been his 'servant' or inferior officer. So the *mutîr pûti*, who are said to have a *ràb kiṣir*, must have been under, not over them. A comparison of no. 473 R 10 with no. 474 R 10 would seem to shew that the *ràb kiṣir*, Nêrgal-šallimâni, was not only a *ràb kiṣir* but also a 'weaver.' This probably means that like Nabû-tî, in no. 59, he was *ràb kiṣir* of the weavers' *kiṣru*. In no. 364 R 8, we find that Išdi-Ḫarran was a *ràb kiṣir Gimirai*. Was there then a *kisru* of Gimirri? The usual writing of the term in our documents is *amêl ràb ki-ṣir*, but we have *ràb KA-SAR* in no. 699, and *KA-SAR* in no. 116. The meaning of *KA-SAR* is not clear. We can read it *kâṣiru* and the title *KU-KA-SAR*, if really related, suggests a connection with 'clothing.'

170. A list of the names of those who bore these titles may be of interest.

Abilu	Ašur-killâni	Urdu
Abit-papaḫi	Ašur-ilai	Zaḫaṭuṭu
Adadi-nâdin-šum	Ašur-mukîn	Zêrûti
Aḫunûri	Atalumuia (?)	Zêr-Ištar
Aḫûni	Balasî	Ḫubaste
Akkullanu	Bêl-aḫ-uṣur	Ḫinûmu
AN-MA-li	Bêl-Ḫarran-ibni	Ṭebetai
Apil-šarri-ilai	Gabri	Ilu-iadinu
Ašur-aḫ-iddin	Erba-Ištar	Ilu-...keniš-uṣur
Ašur-bulliṭ	Unzarḫu-Ašur	Ilu-na'id
Ašur-eṭir	Unzarḫi-Ištar	Išdi-Ḫarran
Ašur-ziram	Usî	Išdi-Nabû

Ištar-ilai
Kakkullanu
Kulkulanu
Kiṣir-Ašur
La'iti-ilu
Luḳu
Liḳipu
Mamê
Mannu-kî-abi
Mannu-kî-Arbaili
Mannu-kî-Nabû
Mardu
Marduk-aḥ-ibni
Marduk-eṭir
Mušêzib-Ašur
Milki-idri
Nabû-apil-šarri-uṣur
Nabû-balaṭsu-iḳbi
Nabû-rîmâni
Nabû-šallim-aḥê
Nabû-šarr-uṣur
Nabû-tî
Nergal-ašarid
Nergal-šallimâni
Ninip-tî
Silim-Šamaš
Sin-aplu-uṣur
Sin-bêl-uṣur
Sin-na'id
Ṣabânu
Ṣabinu
Ṣalmu-šarr-iḳbi
Ṣanṣânu
Rîmtu
Šamaš-ilai
Šamaš-na'id
Šarru-êmurâni
Šulmu-bêl-lamur
Šumai
Šumma-ili

171. On K 4395, v. 20, the title *ràb MU-GI* follows. This has already been dealt with. Its occurrence here may be due to some similarity of function with that of the *ràb kiṣir*. One may be inclined to surmise that *MU-GI* is really the same as *kiṣru*. I know of nothing to support this view.

The next office named on K 4395, v. 21 is that of the *amêl A-BAL*, which is rendered in IV. R. 12, 40 by *nâḳ mê*. The *A-BAL* itself is rendered *dilûtu* in K 56, II. 3, and *BAL* is given as *dalû* 'to draw up water,' in II. R. 38, 5 e. These words are certainly connected with the apparatus for watering the fields in Mesopotamia: compare the passage in Delitzsch, *H. W. B.* p. 218 a, *dulâti uratta* (*iṣu*) *ziriḳa ilalma mê idallu*, 'he fastens the buckets, suspends the pole, and draws up the water.' The *nâḳ mê* had also a special function in the funereal rites: see specially Del. *H. W. B.* p. 479 a. This official does not occur in our documents.

The next official named on K 4395, v. 22 is the *amêl SA-GAZ*, rendered by II. R. 26, 13 g and II. R. 49, 34 e as *ḥabbatu*. Del. *H. W. B.* p. 269 a, gives a meaning, 'plunderer,' 'robber.' It seems very improbable that the profession of 'a robber' would be put in a list of officials. I am more inclined to suppose such a meaning as 'slaughterer,' of animals in sacrifice, or a butcher (?). The title does not occur in our documents. As *ḥabâtu* is used of taking crops from the fields, see V. R. 46, 48, *iḥbût ṣêra*, perhaps *ḥabbatu* means 'a harvester,' as does the next title. (Professor Jensen.)

172. The next profession mentioned on K 4395, v, 23, is the *amêl ŠE-ḲI-KUD*. The group *ŠE-ḲI-KUD* is given by K 4170,

R 5 as *êṣêdu*: see Del. *H. W. B.* p. 120 b, f. The ideograph for the office therefore denotes the 'reaper.' Del. *H. W. B.* p. 121 a says the reading is still uncertain. Muss-Arnolt gives *amêl eṣidâni*, 'harvesters,' from the Aramaic הצדן; see *Z. A.* III. 239, 9 and *Rev. d'Assyr.* II. 29. The ideographic form of the title occurs in our documents, nos. 88, 129, 130, 148, 674. A phonetic reading of the term, *amêl e-ṣi-di*, occurs in no. 132. A superior official, or 'foreman,' of the reapers is called *amêl šâkil eṣidi*, literally 'one who looks after the harvest'; or possibly 'one who feeds the reapers.'

The next office named on K 4395, v. 24, is the *amêl UD-ŠÚ*, which is not otherwise known to me. Perhaps it is to be read phonetically *paršu*, cf. Del. *H. W. B.* p. 546 a.

The next office named on K 4395, v. 25 is the *amêl ràb ŠA-ŠIT*. Now v. R. 11, 4 d gives *ŠA-ŠIT* as *nikasu*; which means 'property' in general: see Del. *H. W. B.* p. 464 a: who gives *ràb nikasi* as meaning 'Hauptkassierer, Kassenverwalter' &c. The term occurs in our no. 204, as the title of a witness. The *nikasu* seems to have been 'the delivery of goods ordered,' 'rendering account of them,' then perhaps an 'undertaking.' See the passages in Tallqvist *Spr. Nbd.* under *nikasu* and Zehnpfund *B. A. S.* I. p. 535.

173. The reverse of K 4395 has its last column so badly damaged that little can be made of it. When it first becomes intelligible we meet with the title *LUGAL IM-GI*, which however has an *amêl* clearly before it. That points to its being not a royal title, but one of those high-priestly or national offices which a king did often occupy, like *šakkanaku*. The next title is written *amêl NU-SUR-MEŠ*, or perhaps, *amêl nukuš* (*plu*). Perhaps this is a 'doorkeeper'; compare II. R. 23, 40, 41, where *nukušû* appears to be a synonym of *nûr dalti* and *mukîl dalti*.

The next title *lililu* may be ideographic. The next is *ŠI-UM-BAR*, which also seems ideographic. For the next *amêl-NUN-MEŠ* we may perhaps read *rubûti*, 'princes.' In the same line is *amêl NUN-LAL*, which is very likely a synonym. The *LAL* is not quite convincing, *amêl NUN-ME* is given as *abḳallu*: see Del. *H. W. B.* p. 9 a. The next reads *amêl KUR-GAR-RA*: with which we may perhaps compare the *amêl KUR-GAR-RA* of no. 160, rev. 12. What these mean I cannot tell. The title is borne by a witness, Šalabeltišunu, in no. 160.

The next title is the *amêl UR-RAK*, which is rendered *assinnu*

in II. R. 32, 22 e. The preceding *KUR-GAR-RA* in the places quoted Del. *H. W. B.* p. 110 a, make it probable that we have here also two variant forms. The *assinnu* is a 'temple servant' of some sort.

The title *amêl ardi mâti*, K 4395, VI. 27, is I think equivalent to *ardi êkalli*, 'palace servant.' It is followed directly by *amêl apil êkalli*, lit. 'son of the palace,' very likely properly 'a slave born in the palace'; but then generally applied to all palace servants. These terms are not used in our documents exactly, but palace 'servants' are often mentioned, see under *ardu* in glossary.

The next title, K 4395, v. 29 is *amêl LIBIT-GAB-GAB*, which is rendered II. R. 38, 10 e by *lâbin libitti*, 'a brickmaker.' The next line appears to give two titles, *amêl GAR* (or *ŠA*) and *amêl murakkišu*. This does not seem to be referable to *rakâsu*, unless *rakâšu* is a by form, perhaps with a similar meaning; cf. the forms *nasâku* and *našâku*. The *amêl ŠA* is discussed in § 226.

174. The next title in K 4395, v. 26 is *amêl TU-DAN-DAN*. I am not aware of any explanation of this. The next title is *amêl TU-GAB-GAB*. The sign *TU* is an ideogram for *erêbu*, 'to enter,' and *amêl TU-BITI*, which may be a parallel form of title, very likely means 'a temple servant,' 'one who enters the temple.' What the second elements *DAN-DAN* and *GAB-GAB* could be in these cases it is mere speculation to suggest. Any way, neither title occurs in our documents. The *amêl TU-BIT* or *êrib bîti* occurs in our no. 660 *a*. On these titles see Jeremias, *B. A. S.* I. p. 288. On another view of the title *amêl TU-bîti*, see § 151.

This title may denote a neophyte, one who was in training for the temple service. If such a meaning is permissible for *TU*, then as *DAN-DAN* may be read *kallab* or *gallab*, the *TU-DAN-DAN* may be connected with the *gallabu* which follows.

In K 4395, v. 28 we have the *amêl ŠÚ-I* which K 4580, 8 reads *gal-la-bu*. It appears to mean a 'hair-cutter' or 'hair-dresser,' see Del. *H. W. B.* p. 196 b. The term occurs in no. 160 as the title of a witness. The *gallabu* also cut, or scratched, a mark on the skin of a slave, to serve as a brand or mark of ownership.

Again, in K 4395, v. 29 we have the *amêl GIR-LAL* with which we have dealt already. It may here be rendered by the next line, where we have *nâkisu*: which means 'one who cuts off,' with special reference to 'decapitation': see Del. *H. W. B.* p. 463 a. Hence one side of the 'dagger bearer's' office may have been the slaughter

of cattle for sacrifice: see *nâš paṭri* in § 115, and compare the 'Cultustafel' of Sippara, *B. A. S.* I. p. 289.

175. Immediately follows, in K 4395, v. 31, the title *amêl MU-bît-ili*. Here *MU* is certainly some 'servant.' Whether it is the same *MU* as appears in *ràb MU* and *ràb MU-GI* must remain open for the present. What is clearly the same title occurs in our no. 640, where we have, as witnesses, an *amêl MU bîti ilu Ninip*, and an *amêl MU bîti ilu Nabû*. They are placed below the priests, *šangû*, several scribes, a house manager, *ràb êkalli* &c. The official immediately preceding the first is a *ràb BI-LUL* of Ninip. This witness comes last of all, in the list of those who belonged to the temple of Ninip. Thus the *MU-bît-ili* was rather low in the scale of temple officials. He may have been the 'baker.'

The next title on K 4395, v. 32, is *amêl ša malgâtešu*. The *malgûte* occur in our documents as a district and seem to be the 'brick-yards.' Perhaps here we have also a 'brickmaker.'

176. The next title on K 4395, v. 33, appears to be *amêl raksu*. I think this is shortened from the form *amêl rakasu*, which occurs three times as the title of witnesses, in no. 330. There we see that the *ràb šaḳi* had his *rakasu*. In view of Del. *H. W. B.* 621, and the connections of *rakâsu* with building operations, perhaps this was an 'architect' or 'builder' of some kind. The form *raksu* occurs in no. 526, and in no. 50 R 2 we have an *amêl raksu dalâni*, perhaps a 'mender of buckets.' In no. 398 we have *amêl rak-sa*. Perhaps the connection with the proper meaning of *rakâsu*, 'to bind,' 'make fast,' indicates a 'repairer' of damages in general; compare *mušarkis* § 152. On K 550, *H. A. B. L.* p. 59, some Kusai horses are named as belonging to the *amêl rak-su-(plu)* of the house of the *ràb šaḳê*. This connection with horses may be significant. A frequent expression for devoting horses to the service of the god is, *ina šêpâ ili irakkas*, 'he shall harness (or bind them) at the feet of the god.' So, the horses themselves are termed *raksûti*, i.e. 'harness horses,' on K 1113, R. 8, *H. A. B. L.* p. 64: the verb *urakkasûni* follows two lines lower. On K 533, 9, *H. A. B. L.* p. 309, the *amêl rak-su-ti* are named, again in connection with 'horses.' On K 653, 14, *H. A. B. L.* p. 149, an *amêl rak-su-(plu)*, perhaps to be read *amêl raksûti*, appears to be a *šanû* of the *ràb MU-GU*.

The superior officer *amêl ràb rak-si* is named on Rm 77, 6, *H. A. B. L.* p. 436, along with the *ràb kallê*: cf. Delitzsch *B. A. S.* II. p. 29.

The šaknu.

177. In line 32, on K 4395, VI. we have the two titles *amêl ša-kìn* and *amêl GAR-nu*. They both are formed from *ŠA* = *šakânu*, by the phonetic suffixes *kìn*, written *MAT*, and *nu*. Hence they are clearly to be read *amêl šakìn* and *amêl šaknu*.

There is no doubt that this official, so often mentioned in the Canon lists, as well as in the historical texts and our documents, was the chief official in the principal cities of Assyria. Every town, of proper rank to furnish an Eponym, had its *šaknu*. Unlike many other Assyrian titles, it is easy to see the connection between the functions he discharged and the proper meaning of the word. One can hardly refuse to admit that *šaknu* properly means, 'one who is set,' or 'placed,' in a position. Consequently we find such meanings given as 'Bestellter, Eingesetzter' Del. *H. W. B.* p. 659 b, and 'Vertreter,' then 'Statthalter.' See on the whole subject Winckler's *Gesch. Bab. Ass.* p. 210 f; and Delitzsch *B. A. S.* II. p. 47 f. It is clear that the *šaknu's* position was properly that of *locum tenens* for the king; a 'delegate,' a 'deputy,' the forerunner and closely similar parallel of the Persian satrap. The appointment of this official was certainly in the hands of the king. Thus we read, *amêl šakin* (*plu*) *šikin ḳâtia aštakkana elîšun*, 'the *šaknûti*, the deposit (literally) of my hands, I placed over them.' So also Adadi-nirari calls himself *šakân irṣit ilâni*, 'the *locum tenens* on earth of the gods'; and Pudu-ilu is the *šaknu* of Bêl: so also Sargon, who had no hereditary claim to the throne. The *šaknu* is then the vicegerent of the king. As such, it is a more general, and inclusive title, than *bêl-paḥâti*, *ḳêpu*, &c. It is not so much a distinct mark of the class of official as a note of the function discharged by him. Sargon sets his *šutšaḳê* as *šaknûti* over conquered peoples, and this is denoted by *ana amêl NAM-ú-ti*. Hence the *amêl NAM*, the *piḥû*, or *bêl paḥâti*, is, in some points of view, a *šaknu*. On another side, this *amêl NAM-ú-ti* is equivalent to the *amêl bêl-NAM-ú-ti* or office of the *bêl paḥâti*. Hence in the word *šaknu*, the fact that he is nominee of the king is brought forward, while his rank and administrative function is made prominent by his title *bêl piḥâti*. For a statement of the powers of the *šaknu*, little more can be needed than Dr Winckler has given.

178. That the *ša-kìn*, of the Canon lists, and of the dates on our documents, is really the *šaknu* is implied in K 4395, VI. 31; where *amêl ša-kìn* is placed on the same line with *amêl GAR-nu*;

in which group *GAR* = *šakânu*, and its derivatives and *nu* is the phonetic complement. The old reading of *ša-kìn* as *ša-laṭ* is now abandoned. A considerable variety of spelling obtains in our documents. In the dates we usually have the construct, *ša-kìn mâti* or *âli*; spelt *GAR-MAT*. The commonest form of the nominative is *GAR-nu*, i.e. *šaknu*; but *GAR* alone is used in nos. 77, 308: if not elsewhere. We find *šak-nu*, a purely phonetic spelling in nos. 350, 560, *šak-an-šu* in no. 223, *ša-ka-šu* in nos. 87, 88, *ša-kan-šu* in no. 478, *ša-kín*, i.e. *GAR-ḪAR*, in no. 77. Some of these spellings possibly refer, however, to a different title: see § 226. That we have sometimes to do with a very different person from the chief magistrate of a province is certain; for example, from no. 607, where we have a *šaknu*, *GAR-nu* of the king's son; no. 619, where in line 5 and line 10 two slaves sold are said to be *amêl GAR*, or *šaknu*. In no. 629, Silim Ašur is an *amêl GAR*. In these cases we may have the original sense of a '*locum tenens*.'

In no. 619, 8 Ašur-dûr-ḳali, a slave sold, is called *šaknu šaḳê*. In a large number of cases, some person is said to be, *ša ali*, or *ša mâti*; when *ša* is written with the sign *GAR*, we may be in doubt whether *šakin* is meant or not. Alongside these cases we also find *šá âli* or *šá mâti*, where there can be no doubt that 'of' the city or country is intended. I have not counted these cases of *ša*, among the instances of *šaknu*. They will be found in the glossary under *ša* = 'of.' In no. 172, Mušêzib-Marduk is said to be a *šaknu* of the horses of the new palace. In no. 207, Sukkai and Šamaš-ri'ûa bear the title *amêl GAR-nu*; on no. 253, Ašur-dûr-uṣur is termed *ša-kìn*; on no. 175, Išidsunu and Nabû-aḥê-iddin; on no. 4, Ḳurdi-šarri; on no. 351, Ašur-bâni and ...kiri; on no. 58, Dabî (or Ṭabî); and on no. 50, Abu-ul-idi are termed *amêl GAR*.

The *šaknu* is often mentioned as an official likely to assert a claim over estates sold or pledged, evidently in connection with the service due, for public works, or the army; see nos. 77, 85, 87, 88, 164, 223, 244, 271, 307, 308, 325, 405, 418, 419, 426, 429, 471, 474, 477, 478, 495, 560, 641. An *amêl GAR-šarri*, which I read *šakin šarri*, is named; in no. 50, Nêrgal-nâṣir of Kurban; on no. 322, Ḥubašâte.

The šakintu.

179. Before giving a list of the various persons who held the

office of *šaknu*, we must notice a very remarkable fact in connection with the office. It seems that a number of ladies held this office. In our documents we repeatedly meet with some lady bearing the title of *šakintu*. That this is a feminine form of *šaknu* goes without saying. Dr Peiser, *K. B.* IV. p. 117 renders it admirably *Statthalterin*. Dr Oppert, Assyrische Landrecht, *Z. A.* XIII. p. 267, suggests '*Frau des šaknu, Präfekten*,' and later says '*entweder Händlerin, Präfektin*.'

The Assyrian scribes resort to a variety of spellings, perhaps because the title was somewhat novel: we have *ša-kín-tu*, *ša-kín-tú*, *ša-kín-ti*, *ša-kín-te*, *ša-kín-tú*, *ša-kin-ti*, *ša-ki-in-tú*, *ša-ki-in-ti*, *ša-ki-in-te*, (*GAR* =) *šakin-tú*, (*GAR* =) *šakin-te* and *ša-kin-tú*, written with the sign *GIM* for *kin*. As *ŠA* or *GAR* is the ideogram for *šakânu*, from which the word is derived, the scribe generally begins with *ša*; once only he writes *šá-kìn-tu*. As we have seen above, *amêl GAR* is often written for *šaknu*, we may therefore suppose that *ŠAL-GAR* was read *šakintu*. Consequently when K 829 gives a list of 13 *ŠAL-GAR-MEŠ*, we may suppose these to be 13 ladies bearing the title *šakintu*. Thus we learn that at one time there were as many as 10 cities or municipalities ruled, each by a *šakintu*, or lady *šaknu*. We learn then from this list that Nineveh had at least three quarters, called *Ḳabal Ninûa*, *Maḫirte Ninûa* and *Maḫirte Kiṣir Ešši*. Other cities named are *Nasibina*, *Šibaniba*, *Šûdu*, *Te'di*, *Kapa*, *Diḫḫân*, *Sunê*, and 'the palace' of the *Bêlit bîti*. The list seems to be drawn up for the purpose of enumerating the weavers belonging to the royal establishment, those in the cities of Raṣappa, Urzuḫina, Mazamûa, Arapḫa, Kar-Ašur and Laḫiru are given, and the grand total was one hundred and forty-five. That I am correct in reading *ŠAL-GAR-MEŠ*, as *šaknâti*, seems proved by the fact that, in no. 643, the *šakinte* of Ḳabal Ninûa is named; so also nos. 67 and 190. That *Ḳabal âli* means the same as *Ḳabal Ninûa* is probable, when we compare nos. 232 and 447; in the former the lady Aḫudalli is *šakintu* of *Ḳabal âli*, in the latter of Nineveh. *Ḳabal âli* is also named in no. 242 and the *šakintu* of Nineveh in no. 339. A *šakintu* of Aššur is named in no. 209. For the most part 'the *šakintu*' is named, without any specification of her province, and I am inclined to think that in such cases Nineveh is meant.

Aḫudalli was *šakintu* of Ḳabal Ninûa, in B.C. 685, 683, and seems to be the same person as Aḫidalli in no. 643, if we may read the sign *tar* as *dal* there. In B.C. 668, Ṣarpi was a *šakintu*, and in

B.C. 694, Addati held this office. In view of the number of ladies who held this title at one time, it would be absurd to attempt to identify with those ladies, whose names we know, others who are found in the office about the same date.

180. Arguing from the case of the *šaknu*, we may feel sure that these ladies were set in their office by the king's will. They were very likely princesses. The *šakintu* was certainly a person of property; in no. 137 her corn, in no. 62 her field, in no. 120 her sheep, in no. 76 her slave, and in nos. 218 and 356 her *šaḳû*, are named. She buys and sells and generally transacts business, apparently in her own right; directly, or through her agent. It is perhaps hazardous to conclude that less responsible ladies, of lower rank, had the same privileges. The title does not occur before B.C. 694, the Eponym of no. 67 being clearly not the Sinšallimâni of B.C. 748; the title occurs once in B.C. 694, twice in B.C. 693, once in B.C. 687, once in B.C. 685, once in B.C. 683, twice in B.C. 668, in B.C. 652, and often at later dates.

A list of *šaknûti* of various cities, at different dates, may be of interest. I have arranged them under their cities.

Aḥi-Zuḥina; B.C. 839, Ninip-kibsi-uṣur; B.C. 837, Ḳurdi-Ašur; B.C. 802, Ninip-ilai; B.C. 767, Ḳurdi-Ašur; B.C. 731, Nêrgal-uballiṭ; B.C. 710, Šamaš-bêl-uṣur.

Akkad; B.C. 644, Šamaš-udaninâni.

Aliḫu; Ep. G. Mušallim-Ašur.

Amêdi; B.C. 800, Ilu...; B.C. 762, Ṭâb-Bêl; B.C. 726, Marduk-bêl-uṣur; B.C. 705, Upaḫḫir-Bêl, and later La'iti-ilu.

Arapḫa; B.C. 812, Šamaš-kumûa; B.C. 803, Ašur-baltu-nišê; B.C. 769, Bêl-ilai; B.C. 745, Nabû-bêl-uṣur; B.C. 735, Ašur-šallimâni; B.C. 714, Ištar-dûri.

Arbailu; B.C. 787, Balâṭu; B.C. 759, Pân-Ašur-lašme; B.C. 702, Nabû-li'. Later K 9921, Mîsu.

Arzuḫina; K 1988, Nabû-kuṣurâni.

Arpadda; B.C. 692, Zazai.

Aššur; B.C. 805, Ilu...; B.C. 776, Pân-Ašur-lašme; B.C. 748, Adadi-bêl-ukîn; B.C. 738, Adadi-bêl-ukîn; B.C. 716, Ṭâb-ṣil-ešarra. Later a *šakintu* is named.

Bâbilu; B.C. 653, Amianu.

Barḫalṣu; B.C. 698, Šulmu-šarri; B.C. 674, Šarru-nûri; B.C. 650, Ašur-dûr-uṣur. Later (?) Ašur-âlik-pâni.

Gargamiš; B.C. 691, Bêl-êmurâni.

Guzana; B.C. 794, Mannu-kî-Ašur; B.C. 763, Bur-Sagale; B.C. 727, Bêl-Ḫarran-bêl-uṣur; B.C. 706, Mutakkil-Ašur.

Dûrilu; Iliada', B.C. 725; B.C. 670, Šulmu-bêl-lašme.

Dûr-Sinaḫêrba; B.C. 667, Gabbaru.

Dûr-Šarrukin; B.C. 688 (?) Iddin-aḫê; B.C. 672, Nabû-bêl-uṣur; B.C. 664, Šarru-ludâri. K. 1253, Kiṣir-Ašur.

Dimašḳa; B.C. 694, Ilu-ittia.

Ḫarran; B.C. 685, Tirî; B.C. 649, Sagabbu.

Ḫindana; B.C. 646, Bêlšunu; Ep. B. Sin-šarr-uṣur.

Isana; B.C. 791, Šêpâ-Šamaš; B.C. 758, Bêl-takkil; B.C. 700 Mitûnu.

Kakzi; B.C. 832, Šarpati-Bêl; B.C. 789, Adadi-mušammir; B.C. 760, Laḳipu; B.C. 724, Ašur-išmeâni; B.C. 703, Nuḫšai; Ep. H, Abu-ul-idi; Ep. *a*, Marduk-rîmâni.

Kalḫu; B.C. 852, Šamas-bêl-uṣur; B.C. 798, Bêl-tarṣi-AN-MA; B.C. 772, Aṣur-bêl-uṣur; B.C. 744, Bêl-danân; B.C. 734, Bêl-danân; B.C. 713, Ašur-bâni; later K 1988, Bêl-nâṣir.

Kapa; K 829, 10 a *šakintu*.

Kar-Ašur-aḫ-iddin; B.C. 648, Bêl-Ḫarran-šadûa; the Assyrian Tyre.

Kullania; B.C. 684, Mazarnie.

Kumuḫḫi; B.C. 668, Mar-larim; B.C. 645, Nusku-ilai; Ep. Q, Ṣalmu-šarr-iḳbi.

Kurban; B.C. 784, Nabû-šarr-uṣur; B.C. 757, Ninip-iddin; B.C. 699, Bêl-šarrâni; Ep. H, Nêrgal-nâṣir.

Kirruri; B.C. 835, Nêrgal-mudammiḳ; B.C. 814, Mudammiḳ-šarri; B.C. 797, Ašur-bêl-uṣur; B.C. 675, Ninip-mukin-nišê; B.C. 729, Liphur-ilu or Napḫar-ilu; B.C. 708, Šamaš-bêl-uṣur.

Laḫiru; B.C. 673, Atri-ilu; B.C. 670, Nêrgal-ilai.

Lullume; B.C. 712, Šarru-êmur-âni.

Mazamûa; B.C. 811, Bêl-ḳâtâ-ṣabit; B.C. 783, Ninip-nâṣir; B.C. 768, Aplai; B.C. 733, Ašur-udaninâni.

Marḳasa; B.C. 682, Nabû-šarr-uṣur; B.C. 680, Danânu.

Muṣaṣîr; Abalukunu.

Miḫiniš; B.C. 792, Bêl-iḳîšâni; B.C. 755, Kîsu.

Naṣibina; B.C. 853, Šamaš-abûa; B.C. 816, Šarpati-Bêl; B.C. 801, Šêpâ-šarri; B.C. 782, AN-MA-li'; B.C. 774, Ištar-dûri; B.C. 746, Nêrgal-nâṣir; B.C. 736, Ninip-ilai; B.C. 716, Taklak-ana-Bêl. Had a *šakintu*, K 829.

Ninûa; B.C. 834, Iaḫalu; B.C. 790, Ninip-ukîn-aḫi; B.C. 761, Ninip-ukîn-aḫi; B.C. 725, Maḫdi: B.C. 704. Nabû-dini-êpuš; B.C. 682, Nabû-zêr-kêniš-lîšir; B.C. 647, Aḫu-ilai (?).

Ninûa; Kiṣir Sin-aḫê-erba; K 9921, Nabû-šarr-uṣur.
„ Kiṣir eššı; K 829, a *šakintu*.
„ Ḳabal Ninûa had a *šakintu*, K 829: B.C. 685, Aḥudalli; Ep. II.; B.C. 668.
Ninûa; Maḥirte Ninûa had a *šakintu*, K 829.
Samalla; B.C. 681, Nabû-aḫ-êreš.
Samirina; B.C. 645, Nabû-šarr-aḫêšu.
Sunê; *šakintu*, K 829.
Simê; B.C. 732, Nabû-bêl-uṣur; B.C. 712, Ninip-âlik-pâni.
Parnunna; B.C. 785, Marduk-šarr-uṣur; B.C. 756, Bêl-šadûa; B.C. 697, Nabû-dûr-uṣur.
Parsua; Rm 70, Ilu-taklak.
Purammu; K 9921, Marduk-erba.
Ṣupite; B.C. 683, Mannu-kî-Adadi.
Ṣurri, Tyre; B.C. 648, Bêl-Ḥarran-šadûa.
Ṣimirra; B.C. 693, Iddin-aḫê; Ep. H, Mannu-kî-aḫê.
Ḳuê; B.C. 685, Ašur-udaninâni; Ep. K, Nabû-udaninâni; Ep. S, Marduk-šarr-uṣur.
Raṣappa; B.C. 838, Ninip-ilai; B.C. 804, Nêrgal-êreš: B.C. 775, Nêrgal-êreš; B.C. 747, Sin-šallimâni; B.C. 737, Bêl-êmurâni; later K 9921, Abda'.
Rimusa; B.C. 786, Adadi-uballiṭ; B.C. 754, Ninip-šêzibâni; B.C. 681, Milkîa; Ep. J, Šulmu-Bêl.
Šallat; B.C. 836, Šêpâ-šarri; B.C. 813, Nêrgal; B.C. 796, Marduk-šadûa; B.C. 773, Mannu-kî-Adadi.
Šûdu; K 829 under *šakintu*.
Šibaniba; B.C. 787, Balâṭu, later K 829 under *šakintu*, old name of Arbela.
Tušḫan; B.C. 795, Ukîn-abûa; B.C. 764, Ṣidḳi-ilu; B.C. 728, Dûr-Ašur; B.C. 707, Ša-Ašur-dubbu.
Tuphân (?); K 829, under *šakintu*.
Te'di; K 829, under *šakintu*.
Tille; B.C. 817, Ašur-banai-uṣur; B.C. 793, Mušallim-Ninip; B.C. 766, Mušallim-Ninip; B.C. 730, Bêl-ludari; B.C. 709, Mannu-kî-Ašur-li'.

181. On glancing over this list it will be seen that I have not separated the *šaknu* from the *bêl paḫâti*. An Eponym is sometimes said to be *šaknu* of a city, sometimes its *bêl paḫâti*. Thus Adar-ilu is *šakìn* of Laḫira on no. 431, but *bêl paḫâti* of the same city on no. 8, and Cylinder B of Esarhaddon. On the other hand,

Manzarnie, the Eponym in B.C. 684, is called *bêl paḫâti* of Kullania on no. 230, and *ša-kin* of the same district on K 2670. I consider it probable that a *šaknu* was also *bêl paḫâti* of the district, of which his Eponymous capital was the chief town. It is not clear to me whether a *bêl paḫâti* was always *šaknu*.

The appearance of the *šaknu* of a city in the list succeeds its conquest and absorption into the Empire at a short interval. It is the sign of complete and final incorporation. Carchemish was taken B.C. 717, and the Eponym is named in B.C. 691. The *šaknu* had probably long been in power, but his turn to be Eponym had not come. Arpad, taken in B.C. 740, first appears in the Eponym list in B.C. 692. Kar-Esarhaddon, founded by Esarhaddon before B.C. 668, appears, as well as Tyre, in B.C. 648. Dûr-Sargon, founded B.C. 707, appears, perhaps in B.C. 688, certainly in B.C. 672. Some of these cities appear under a *šaknu* at an early date. There was a hostile expedition against Guzana in B.C. 809. It appears under a *šaknu* in B.C. 794. There was a rebellion there, in B.C. 759, and an expedition against it, the next year.

Some of these cities disappear from the list as time goes on. There are two possible explanations of this. The rise of Nineveh, under Sennacherib, into a position of overwhelming importance must have led to a certain depopulation of the smaller cities. The appointment of female governors, the *šakintu*, who never appear as Eponyms, accounts for the disappearance of others. Thus Naṣibîna which had a *šaknu*, from B.C. 853 to B.C. 716, had later a *šakintu*, and appears no more in the Eponym Lists. On the other hand a *šaknu* of Nineveh continued to be appointed down to B.C. 647 (?), long after a *šakintu* had been in power over the quarters called Ḳabal-Ninûa, Kiṣir Eššī, and Maḫirte Ninûa (?).

The appointment of *šaknu* was evidently held for life or good behaviour. Some men retained their appointment for long periods. Ninip-ukîn-aḫi, *šaknu* of Nineveh in B.C. 790 and B.C. 761; Nêrgal-êreš, *šaknu* of Raṣappa in B.C. 804 and B.C. 775; Mušallim-Ninip, *šaknu* of Tille, in B.C. 793 and B.C. 766; shew a long tenure of office. Bêl-danân was *šaknu* of Kalḫu in B.C. 744 and again B.C. 734.

Promotion evidently took place from the position of *šaknu* of one city to that of another. Šarpati-Bêl, *šaknu* of Kakzi, in B.C. 832, appears as *šaknu* of Naṣibîna, in B.C. 816. Bêl-êmurâni, *šaknu* of Carchemish, in B.C. 691, became Tartan in B.C. 686. Iddinaḫê, of Ṣimirra in B.C. 693, was, as G. Smith believed, the *šaknu* of Dûr-

Sargon, in B.C. 688. Šêpâ-šarri, *šaknu* of Šallat, in B.C. 836, appears as *šaknu* of Naṣibîna, in B.C. 801. Nabû-šarru-uṣur, in B.C. 682, *šaknu* of Marḳasi, seems on K 9921 to be *bêl piḥâti* of the new quarter, Sennacherib's, of Nineveh, and later as *ràbšaḳê* in B.C. 655. Of course it is not absolutely certain that these are always the same persons. There may be some traces of a hereditary position, in the recurrence of the same name, after an interval. It is very unlikely that a son ever bore the same name as his father, but probably a nephew, and more likely still a grandson, often did so. The Ḳurdi-Ašur, of Aḥi-Zuḥina, in B.C. 837, must surely have been related, in some such way, to his successor, of the same name, seventy years later.

182. The list in K 4395, VI. 32, now 'throws back' to the *ḳêpu*, with what purpose is not clear, unless to shew that a *ḳêpu* was closely related in his functions to the *šaknu*, who was certainly his superior officer. Here the guidance of that list deserts us. For the other officials named in our documents I shall follow an alphabetical order. Some of these titles may really be the same as some of those already named: but at present I see no evidence to connect them.

The abba.

The *ab-ba* is named on no. 403. Now K 50, I. 24, gives *AB-BA* as *irrišu*, and K 4207 makes it a synonym of *nasîku*. In Ašur-bânipal's proclamations to the Gambulai and the Sealanders, K 1054 and K 312; *H. A. B. L.* p. 295 and 301; he addresses them as *amêl ab-ba* (*plu*) *u mârê*, which looks very like 'fathers and sons,' 'old men and young men.' At any rate this use probably stamps the *abba* as a 'Senator.' On K 620, 13; *H. A. B. L.* p. 82, the *amêl AB-BA*-(*plu*) are named with the *ḫazânâte* and the *urasi*.

The âsû.

The *âsû* or 'physician,' see Del. *H. W. B.* p. 107 a, is often named in our documents and the letters. The title is often written *amêl A-ZU*, which Rm 338 renders by *a-su-ú*. A study of the medical texts of Assyria and Babylonia must be made before we can know how far the *âsû* was really a 'helper,' as his name originally meant. Our confidence in his powers is not likely to be increased, when we note that *amêl A-ZU* was also read *bârû*, a 'magician.'

See Zimmern, *Beiträge z. Kenntniss d. Bab. Rel.* II. p. 82 f, on the methods of this person. The goddess Gula was chief patron of the healing art, she was *âsîtu gallatu*, the 'great doctress.' From our documents we learn that Ardi-Nabû, Bulṭai, Zêrutti, Pušula, Ša-ib-ûa and Šamaš-aḫ-iddin were 'doctors.' Ardi-Gula is named in no. 277 as *šanû ša ràb âsû*, 'deputy of the chief physician.' We have a phonetic spelling *a-su* in nos. 349 and 630. The higher official *ràb âsû* is named in nos. 118 and 192. In the former case he seems to be called Baṭudani. A deputy or *šanû*, called Banî, is named on nos. 377, 408, 470. Professor Zimmern suggests that this name is derived from the Sumerian *A-ZU* and may mean the *Wasserkundige*, if not simply the '*Kundige*.' The importance of the examination of urine, in the diagnosis of disease, if really implied by this title, would greatly raise our respect for the *âsû*; but I fear his observations were solely directed to the behaviour of water in certain magical performances.

The ašlaku.

183. The *ašlaku*, written *amêl KU-UD*, is named in no. 307, where Išdi-Bêlit bears the title; and also in no. 619, where Dagil-ilu has it. There is no doubt that it represents some trade or occupation, perhaps a 'handicraft.' I think it likely that the *âl amêl ašlakê*, named in no. 307, is one of the quarters of Nineveh: inhabited chiefly by this class of workpeople. Del. *H. W. B.* p. 145, gives no indication of its meaning, beyond calling it a *Berufsname*. Muss-Arnolt, p. 115, gives 'treasurer, secretary,' after Halévy, and 'sexton,' from *Z. A.* IV. 114. There is nothing in our documents to suggest a meaning. In *Str. Nbkd.* 312, 5 we have mention of an instrument used by this person, the *IṢ-KU-UD*. Meissner, *Suppt.* p. 19, is much better, he makes this occupation that of a 'washer' or 'dyer.' He had a 'pole' to work with called a *mazuru*, or *dimmu ša ašlaki*, see Del. *H. W. B.* p. 221 a. This may have been a 'bar' or frame on which clothes were hung, while being scoured or washed, and then left to bleach. The ideogram, composed of *KU*, 'garment,' and *UD*, 'clean,' or 'white,' suggests a 'washerman,' or perhaps 'fuller.'

The bêl âli.

184. The *bêl âli* must be a closely analogous official to the *ràb âlâni*. In no. 171, Atâ is said to be *bêl âli*, of the city of the

goldsmiths, which would seem to be the chief magistrate of the goldsmiths' quarter in Nineveh. In the same text Aplia is said to be the *bêl âli* of Ḥubaba; and in no. 499, Išdi-ilu... is the *bêl âli* of Sišadiḳanni. The title occurs in the plural *amêl EN-ER-MEŠ* on K 507, 13, *H. A. B. L.* 79. Delitzsch, *B. A. S.* II. p. 36, reads this *ḳêpâni*; S. A. Smith, *P. S. B. A.* x. p. 173 f, had read *ḥazânâte*. I do not see any strong reason for departing from *bêl âli*. I think *bêl âli* was usually *ḳêpu*, as *bêl paḥâti* was usually *šaknu*, but there seems no gain in reading them so in ordinary cases.

185. The title borne by Nabû-dûri, on nos. 12 and 292, is in each case defective; so far as preserved, it reads *bêl za*... There is nothing to indicate how the title should be completed. Perhaps it was *bêl zammerê*.

The bêl ilki.

It is somewhat doubtful whether *bêl ilki* denotes an official proper, or is a general term covering all those who had the right to levy the *ilku*. The term does not occur as a title among witnesses, buyers or sellers. Only in nos. 247, 436, 474, 477, 492, 500 and 508, it is stipulated, in favour of the buyer, that the *bêl ilki* shall not put in any claim to the property. The *ilku* being 'a levy of service or material' made for state purposes, this meant that the seller sold, subject to the stipulation that no such levy would be made on the property.

The bêlit bîti.

The title *bêlit bîti*, 'lady of the house,' in no. 50, must be used with a special meaning. The 'lady of the palace,' and thereby one of the wives of the reigning monarch, seems most likely.

The bêl paḥâti.

186. The title *bêl paḥâti*, by which I render the writing *amêl bêl NAM*, appears to be properly a civil one. The *paḥâtu*, of which he was 'lord,' does not appear to have any military meaning. It certainly denoted a town, or district. At the same time it seems likely that this chief magistrate of a city had precisely the same executive and also military functions as a *šaknu*. Delitzsch, *H. W. B.* p. 519 b, renders *piḥâtu* by '*Verwaltungsbezirk*,' 'administrative district.' The form *paḥâtu*, with the same meaning occurs. On the

whole, there is more ground for reading *bêl paḫâti*, than *bêl piḫâti*. The ideogram *NAM* is read *paḫâtu* and also *piḫâtu*. Delitzsch derives it from *piḫû*, 'to steer,' actually used of 'steering ships'; then like *gubernare*, 'to guide, administer.' Usually in our documents we have the writing *amêl EN-NAM*, but *amêl NAM* is found, in nos. 417 and 471, and often.

He is named as one of the officials likely to intervene in case of a transfer of slaves or estates, evidently on the ground of the *ilku*, or duty to furnish labour and material for public works. Such mentions occur in nos. 77, 181, 199, 230, 252, 448, 471, 495, 506.

In no. 59, a city is said to be in the *bêl paḫâti* of Rimusa, *ina EN-NAM âli Rimusa*. In no. 293, a *bêl paḫâti* acts as buyer. In no. 449, the servants of the *bêl paḫâti* of Barḫalza, one of whom is a *rab alâni*, sell some slaves and a garden of his. In nos. 48, 49, the *apil šipri* of the *bêl paḫâti* is a witness. In no. 225, Dudûa, a witness, is said to be *apil šipri* of the *bêl paḫâti* of Kalḫi. In no. 448, Silim-Adadi, a *ḳêpu* is said to be the servant of the *bêl paḫâti* of Kalḫi, in B.C. 714.

The term is not, however, entirely confined to the chief magistrate of a city, for in no. 152, we find that certain property was advanced by Bêl-dûri, who is said to be the *bêl paḫâti* of the king's son. Here the term must go back to its original meaning of 'administrative officer.'

In several publications we find an attempt to substitute *piḫu* for *bêl paḫâti*; Winckler in his *Geschichte* gives *pechu*. This is against the use of our documents, for while we do find *EN-NAM-šu*, which can be equally well read *bêl paḫâtišu* or *piḫušu* and therefore is not decisive, yet we also find in no. 77, ... *NAM-su*; in no. 181, *EN-NAM-su*, in nos. 199 and 495 the same. These endings in *su*, for *šu*, demand a preceding *t*, and are decisive for *bêl paḫâtsu*. On no. 687, we have the full spelling, *bêl pi-ḫa-tu*. In no. 694, we have *NAM kiṣir*, which may be an abstract of *kiṣir*, *kiṣirûtu*; or better, I think, *bêl paḫâti kiṣir*.

Out of some sixty times, that the term occurs in our documents, singularly few cases have preserved, at the same time, name, place and date. Adar-ili was *bêl paḫâti* of Laḫiru, in B.C. 673; and Nêrgal-ilai, in B.C. 670; see nos. 8 and 625. Milkîa was *bêl paḫâti* of Rimusa, in B.C. 681; and Manzarnie, of Kullania, in B.C. 684; see nos. 59 and 230. So on no. 207, Sin-šarru-uṣur, as Ep. B, was *bêl paḫâti* of Ḫindana. Other *bêl paḫâti* were: Silim-Ninip in no. 426,

Ṣil-Ašur in no. 246, Šumma-Ašur in no. 488, and Ašur-mât-utaḳḳin in no. 361; but we do not know where their posts were.

The bêl ḳâtâti.

187. This title, written (*amêl*) *bêl SÚ-II-MEŠ*, since *ŠÚ-II* is read *ḳâtâ*, is now read *bêl ḳâtâti*. On the meaning of *ḳâtâti*, see Del. *H. W. B.* p. 599 a. It is clear from the position and function of the person, bearing this title, that he acted as 'agent,' or 'undertaker,' for another. It seems that the oft occurring expression *ina ḳâtâ*, 'in the hands' of any one, had taken the meaning of 'agency.' Then a *quasi*-abstract or plural was formed, *ḳâtâti*, meaning 'agency,' or 'business.' The *bît ḳâtâti* was 'the place,' where the business was done; the *bêl ḳâtâti*, the man who did it. The above writing of the term is most common, nine times; but *bêl ḳâtâ* occurs, three times; and *bêl ŠÚ-MEŠ* once. Once also, we have *amêl ḳâtâ*, in no. 126. What the origin of the expression must be, is seen in no. 307, where in line 3, Nabû-riḥtu-uṣur, a Ḥasai and therefore either an alien, or not present, acts *ša ḳâtâ Ardi-Ištar*. In this case Ardi-Ištar was the *bêl ḳâtâti* of Nabû-riḥtu-uṣur. The identity of the different forms is shewn by nos. 67, 113, 119, where the same person, Bêl-êreš, is in turn, *bêl ḳâtâ*, *bêl ḳâtâti*, and *bêl ŠÚ-MEŠ*. In nos. 80 and 94, Nîḳ-ilâni and Ḥanana respectively are *bêl ḳâtâti ša šarri*, the 'king's agents.' In no. 151, Rapai, Kurubi and Šašmai together borrow a hundred measures of straw of Kiṣir-Ašur; Rapai took 60 measures, each of the others 20. Rapai alone sealed the acknowledgement, and is said to be *bêl ḳâtâti ša tibni*, 'agent for the straw,' 'answerable' for it. In no. 166, a female slave was sued for property, said to be due from her absent master; Nabû-aḥ-iddin acted for her, was *bêl ḳâtâti* of the woman, until a fixed date. He undertook to satisfy the suitor, if she was not able to do so. In no. 126, Silim-Ašur advanced some wine to Simme, and Meḥsâ was *bêl ḳâtâte ša karâni*, 'responsible for the wine.' In no. 228, where the text is too fragmentary to allow us to make out the nature of the transaction, Kuruku is said to be *bêl ḳâtâti ša amilti*, or 'responsible for the woman.' Other persons acting in this capacity are Gimil-ili in no. 5, ... zu-zu in no. 56, Erba-Adadi in no. 100, Irisu-ilâni and Šulmu-aḥê in no. 147, Urdai in no. 150, and another in no. 77.

It is clear this title describes the capacity, in which its bearer

acted, rather than any distinct office. Compare the *ràb ḳâtâti* in no. 680 and the *amêlê ḳâtâti* in no. 246: see further § 208.

Money was stored in the *bît ḳâtâti*, see K 538, 20 *H. A. B. L.* p. 104.

The amêl gâru.

The same is true of the next term which I shall notice, the *amêl ga-a-ru*; who seems, in no. 498, to be named as likely to repudiate the bargain. It does not appear clearly, however, what he is expected to do, and his action may be quite different. I think *gârû* here is the 'enemy,' the adversary: see Del. *H. W. B.* p. 204 a. The prefix *amêl* gives the force of a definite article.

The dâgil iṣṣurâti.

The title on no. 60, which reads *amêl da-gil...*, may perhaps be restored *dâgil iṣṣurâti*, also given in the letter, K 572, 9, *H. A. B. L.* p. 31, where we have *amêl aba* (*plu*), *amêl bârê*, *amêl mašmašê*, *amêl âsû* (*plu*), *amêl dâgil ḪU-MEŠ*, all called *manzaz ékalli*, *âšib âli*. This is probably an *auspex*, see *B. A. S.* 1. 219.

The daialu.

188. The *daialu*, whose name, Del. *H. W. B.* p. 215 a, derives from *dâlu*, to 'lay a snare,' then to 'waylay,' occurs in our documents, as a witness in no. 318, where Šamaš-iḳbi is said to be an *amêl da-a-a-lu*. The name applies to Nabû-šarru-uṣur in no. 160. Delitzsch only commits himself to the rendering *ein Berufsname*. Muss-Arnolt, p. 247, prefers the derivation *dâlu*, 'to go about,' 'pursue,' 'slander,' whence 'to busy oneself with,' 'work,' he thence gets the general sense for *daialu* of 'servant.' The *amêl daiali* appear, in the letters, as some kind of military officers, perhaps 'constructors of fortifications,' &c. On K 80, *H. A. B. L.* p. 50, Nabû-nâdin-šum (son of Sennacherib ?) says that he appointed the *amêl daiali*, who had set out with him from Nineveh, to be the *amêl daiali* of Kalaḥ. The superior official, *ràb da-a-a-li*, appears in no. 621, where Ninip-na'id is the *ràb daiali* of Kalaḥ.

The dannu.

In no. 234, *dannu* is used in the sense of 'great one,' 'high official,' as a general term for those likely to intervene in a sale of slaves, on the ground of some claim to their labour, probably.

The muttaggišu.

189. The *amêl TIN* is rendered by *muttaggišu* in II. R. 44, 5 c. Del. *H. W. B.* p. 448, does not give a meaning to this term, though he refers it to a root meaning 'to throw down, demolish.' On K 657, *H. A. B. L.* p. 92, Ṭâb-Šâr-Ašur states that Paḳaḥa the *amêl TIN*, who was over the canals, complained that his workmen had been pressed for military service by the *bêl paḥâti* of Rimusa. On K 1175, *H. A. B. L.* p. 255, the *amêl TIN* (*plu*) are connected with repairs and the *NÊR êkalli*. On the whole it appears that the *muttaggišu* was a 'repairer of breaches.' However that may be, in no. 163 the *amêl TIN* takes the place of the 'judge,' or *sartênu*. It may here be the case that the scribe has omitted *SAR* before *TIN*. In no. 212, R 15, the *amêl TIN* appears as a witness. In no. 481, R 8, Barruḳ, a witness, is an *amêl TIN ša êkalli šanî*. A person, bearing the same name, was *aba*, in B.C. 677, and continually *mukîl apâti* later. On Sm 1034, *H. A. B. L.* p. 405, an *amêl ràb TIN-MEŠ* was sent for, to repair foundations of the Queen's Palace, at Kakzi.

The daianu.

The usual term for 'judge,' *amêl DI-TAR* occurs in our documents, but only as an epithet of a god invoked to avenge a wrong, in the penalty clause F″: see nos. 330, 460, 471, 501.

The dupšarru.

The name for a scribe, *dupšarru*, occurs on no. 12 as the title of Nabû-šêzib. It is more usually replaced by the title *amêl aba*, which see, § 153.

190. In no. 249, 1, we have apparently an *amêl diritunu* named, as a slave sold. I am not aware of the occurrence of the term elsewhere, nor can I find that anyone has suggested a meaning. Can it be connected with *dirratu*, some kind of harness? Or is it a proper name, giving the nationality of the slave?

Muss-Arnolt has a word *diritum*, but the reading is uncertain and also the meaning.

The amêl UD.

In no. 697, 7 we read of an *amêl UD*, if that is all the title. It is followed by *IP-PA-PA*... In old Babylonian contracts, see

Meissner, *A. B. P.* p. 111, the *amêl UD* appears to be a 'priestess,' perhaps specially of Šamaš. It seems scarcely likely that here we have a priestess: but some temple official may be intended. In no. 696, a term *UD-MEŠ* appears, but without *amêl*. They appear to be some sort of *ṣâbê*, or workmen, and Dr Peiser, *K. B.* IV. p. 149, renders *Tagelöhner* (?). This sense would suit the verb *ippapasu*, in the sense of 'hire,' very well.

The amêl UD-EN-DI-šu.

In no. 640, R 12 a witness appears to be styled *amêl UD-EN-DI-šu*. The term may however be read *amêl ŠÁ-UD-EN-DI-šu*. It is not clear whether the *ša* and *šu* are integral parts of the title. Perhaps *DI-šu* is an error for *DI-TAR*, or the scribe may have omitted *ni*; we should then read *bêl dîni*. Then the *UD* would still be unaccounted for.

The amêl urkiu.

191. A term, which occurs several times in our documents, is *amêl ur-ki-u*. In no. 102, we find the writing *amêl ur-ki-i*, in lines 8, B E 1, and R 6. In no. 307, three persons, Saḫpimau, the *nidudu* (?); Išdi-Bêlit, the *ašlaku*; and Bêl-šum-iddin, are said to be *amêl ur-ki-ú-*(*plu*) of the woman, who was sold. Further, Karmeuni is also said to be a witness and *amêl ur-ki-ú*.

In no. 105, 8 we find that a defaulter did not bring his *ur-ki'-u-ti*, and it was decided that if he brought his *ur-ki'-ti* to Ninûai the *šaḳu šarri*, the latter should pay him 30 shekels of silver. Here there is no *amêl*, and it appears as if *urki'útu* might be a term for 'arrears.' Also in the former cases, *amêl urkiu*, seems to me to mean 'a backer' or 'guarantee.' Mr Pinches, *J. R. A. S.* 1898, p. 895, suggested that perhaps the 'next of kin' are meant. The whole subject seems still obscure. The case, in each document, is unique and it is not easy to see what the real state of affairs was. Perhaps we may compare the *amêl urgu* and *amêl ušgu* of the Tell Amarna Tablets.

Delitzsch, *B. A. S.* III. p. 386, reads *amêl NU-IS-SAR-ú-tu* as (*amêl*) *amêl-urḳi-ú-tu*. Hilprecht, *B. E. A. C.* IX. p. 38 f, reads (*amêl*) *urqûtu* for the same ideogram. It is not quite clear, despite the similarity of form, that these terms are the same as those above. If they are, *urki'ti* would be 'garden produce.'

The zammeru; nâru, šattam and amêl LUL.

192. The class of priestly officials called *zammeru*, or 'singers,' are only rarely named in our documents. In no. 537, a witness, whose name ends in *mât* (or *lat*?), is called an *amêl za-ma-ri*; and in no. 284, a witness, whose name also ends in *mat*, is called *amêl ràb za-am-ma-ri*. They may be the same person. It has been usual to read *amêl LUL*, *zammeru*; see Del. *H. W. B.* p. 257 for the reasons. The term *nâru* (*nartu* in the feminine) is apparently a synonym. Also Rm 338 Obv 13 gives *amêl LUL* (read *šat-tam*) as *šattam-mu*.

In no. 47, ... šarri; in no. 50, Muḳallilmitu; in no. 151, Rapai; in no. 279, Bêl-Ḥarran-dûri are styled *amêl LUL*. We ought to add no. 438, R 5, where *LUL* is a better reading than *rat*. The appearance of an official as a witness may be a mark of his respectability, but is not always helpful in finding out his business. In no. 151 however Rapai is said to be the *amêl LUL* of the city of Šidiasika and undertakes to supply a hundred loads of straw for 10 shekels of silver. This does not look like a chorister's business. Singers may, in Assyria, have dealt in straw, but perhaps we are here dealing with a *šattammu*.

I do not see that the *amêl zâmari* is quite certain to be a 'singer.' In Hebrew, זָמַר means 'to cut,' 'to prune,' and the *zâmaru* may therefore be 'a pruner.' In the Census tablets the *iṣu za-am-ri* appears to be a plot of land, perhaps a 'vineyard.' That *zammeru* means 'singer' I do not question, and perhaps the (*iṣu*) *ZAK-SAL* given on p. 257 b of Del. *H. W. B.* may be the palm or vine branch, 'a pruning,' waved in a triumphal procession, instead of a musical instrument. If so, it may be the link between the words *zamâru*, 'to prune,' and *zamâru* 'to sing.' Professor Zimmern, *B. K. B. R.* II. p. 93, adds to the reasons for reading *amêl LUL*, as *zammeru*, that on K 8380, the *amêl LUL* is one of a class of priests who sing, *izamur*.

Whether this 'singing priest' was specially concerned with funeral dirges remains to be seen. It is however worthy of remark that on 81-2-4, 65, a letter, the writer says that when the news was received in the palace, in the city of Aššur, that the king was dead; the whole city wept; 'the *šaknu*' 'sent away his wife from the palace: *alu ṣukar taḳtulu* (?), the *šaḳu* went to stay with 'the *ḫâzanûti*, his *šaḳê* put on dark clothes and gold rings and stood before the *ḫazânu*.'

Then, most significantly, he adds that, 'Ḳisai, the *amêl LUL*, with his daughters, mourned before them.' The verb which I render 'mourn' here, is *i-za-mu-ru*. Here the verb *zamâru* must surely mean to 'chant funeral dirges.' For this portion of the text see Catalogue, p. 1758. The rest of the tablet is badly damaged, and the next seven lines are not intelligible to me. The reverse apparently goes on to narrate that 'Dannai wrote something' and in consequence the people of Aššur went out to meet the corpse, *amêl MIT*, 'with weeping.' The *šaknu* 'with his servants,' *ṣâbêšu*, were 'clothed in mourning,' *naḫlapta ḫallupu*, 'armed with swords.' Without entering here upon the difficulties caused by the defective nature of the text, we may feel quite sure that the *amêl LUL* was, with his daughters, a professional mourner. The name Muḳallil-mitu, of the *amêl LUL Aššurai*, in no. 151, suggests a professional mourner. In no. 112, we have the plural *amêl LUL-MEŠ*. A comparison of 82-5-22, 112 with its apparent duplicate 83-1-18, 399, suggests that *amêl LUL-MEŠ* is used as equivalent to *amêl ràb BI-LUL*: compare *ràb šaḳê* as equivalent to *amêl šaḳê*. On 82-5-22, 112 we have 400 *amêl LUL-MEŠ*, and on K 1473 we have a female *LUL rabîtu*.

The *amêl šatammu*, although also denoted by the same ideogram as the *zammeru*, seems quite a different official. On the Berlin Merodach Baladan Stone, we find the *ḳêpu*, the *šaknu*, the *šattam* and the *ḫâzânu* named in this order, as likely to put forward territorial claims to a certain estate. This *šattam* is clearly a local governor, and hardly 'a singer.' Hence I think that when we have *amêl LUL* followed by a place name, we should read it *šattam*. The title *amêl šá-tam*, given to a witness in no. 215, is clearly the same as *šatammu*.

The ḫazânu.

193. This oft-named official seems to have been a civil servant. Winckler, *Forsch.* I. 246, maintains that he is properly a 'village or district governor.' In our contracts he is usually associated with a town. He does not seem, like the *šaknu* or *ḳêpu*, to have a military side to his office and I imagine he was the selected representative of the citizens. He was the 'Mayor' of the town, though probably he held office for life. He was independent of the *šaknu*. Some towns appear to have had more than one, at any rate in no. 160, Nabû-zêr-kêniš-lîšir is called *ḫazânu šanû* of Nineveh. This may be only '*deputy ḫazânu*,' but suggests his being a sort of 'Vice-Mayor.' On

no. 175, Šalama-ša-iḳbi in B.C. 676; on no. 261, Nabû-bêl-uṣur and Nabû-rêm-ilâni are both called *ḥazânu* of Nineveh. On no. 263, Mannu-ka-aḥê is *ḥazânu* of the city Tûrsana. On no. 56, Kalaḥ; on no. 241, Ḳudazu; on no. 587, Arbela are seen to have each had a *ḥazânu*. On no. 472, Basusu is said to be the *ḥazânu* of the *âl-šê*, or 'country district,' of the Queen Consort of Laḥiru.

Others bearing this title are, Bâbilai on no. 94, Nabû-aḥê-iddin on no. 166, Lutê on no. 169, Aḥûasu on no. 209, Ninuai on no. 244, Munipiš-ilu on no. 391, Mannu-kî-abi on no. 425, Šamaš-abûa on no. 433, Sâsî on no. 448, and Našuḥ-li''on no. 640.

The *ḥazânu* of the seller's city, *âlišu*, is contemplated as likely to intervene with some claim for service from slaves sold or estate transferred. See nos. 59, 77 (?), 426, 446, 495. Sometimes he is termed the seller's *ḥazânu* as in nos. 271, 418, 471, 473. The spelling of the word is usually *ḥa-za-nu*, but *ḥa-za-na* in no. 418, *ḥa-za-a-nu* in no. 175 and *ḥa-za-an-nu* in no. 326, also occur.

On K 598, *H. A. B. L.* p. 145 Sin-na'id is *ḥazânu* of Nineveh. On 81-2-4, 65 quoted above we have the *amêl ḥazânûti* mentioned, as if a place. It is hardly so likely to be the proper plural, as the official residence of the *ḥazânu*. Del. *H. W. B.* p. 272 a gives the plurals as *ḥazânû* and *ḥazânâti*. On K 9180, l. 9, we have *ra-ba-an-nu* given as a synonym of *ḥazannu*.

194. In no. 246, we find a witness Iddinaḥê described as *šá ḥu-da-di*. He is also included in the total of ten servants of the king's son. It is doubtful whether this is a title or really to be read *šá Ḥudadi*. There was a town *Ḥudadu* or *Bagdadu*, see Muss-Arnolt, p. 307 b. The omission of the determinative *âlu* must then be set down as a scribal error.

The kalbu šipirti.

In no. 171, Šarru-na'id and another are said to be *kalbu šipirêti*. The scribe may intend *mâr šipri* by this term. The term *kalbu*, is used in the letters, somewhat often, to denote a 'servant.' The spelling *šipirêti* is unusual, but possibly the scribe was not a native Assyrian. On K 560, *H. A. B. L.* p. 231 we find the messenger *mâr šip-ri* of Daltâ, probably the king of Ellipi in Sargon's time, also called the *amêl kal-la-bu šipirte*. This suggests that *DAN-DAN* may be read *kal-lab*: now compare K 663, *H. A. B. L.* p. 325, where we have *amêl DAN-DAN*, i.e. *kallab šipirtú*.

In no. 694, we have the title *amêl ka-ar-ri*, perhaps the same as *ràb kâri*, see § 134.

In no. 112, we have *amêl ša eli ki-ṣa-te*. Can this *kiṣâte* be connected with *kiṣṣu*, 'a dwelling,' &c.? or is it from *ḳiṣṣu* 'a shoe,' 'sandal'?; or lastly one may suppose that *ṣa* is a mistake for *ṣir* or *ṣar*. There are several cases where *ṣa* or *za* is written for *zar*, as in the names of Unzarḫu-Ašur in no. 312, R 7, and Manzarni, no. 149, R 12. Had *za* really the values *zar*, *ṣar*, *ṣir*?

195. In no. 160, we have mention of an *amêl lasimu* of Nineveh: see Del. *H. W. B.* p. 382 b. Compare also Meissner, *A. B. P.* p. 115, note 1, where *lasimu* is said to be connected with *malâḫu*, *ša rukupi*, *kirtibbu*, *sikiru* and *ba'iru* and therefore is clearly a tradesman or manufacturer of some sort.

In nos. 238, 239, 240, and 427 a witness Sama' is said to be a *murabanu* of the king's son. In no. 324, Nabû-dûr-uṣur is said to be a *muribanu*. These titles are probably the same. With this we may compare the *rabannu* in § 193.

The mutîr ṭême.

196. Obviously this title means one 'who brings back news' or 'carries orders.' It must be a side form of *mâr šipri*; which see, § 149 and 162. We have various spellings; in no. 50, Bêl-ud-kin is said to be an *amêl mu-tar* (*KU*=) *ṭêmi šá apil šarri*; in no. 112, a witness is called *amêl mu-tar ṭe-me*; in no. 253, Zizî is termed a *mu-tar* (*KU*=*ṭemu*)-*me*; also another witness just above; in no. 276, Bêl-ittia is called *amêl mu-tir ṭe-me* and in no. 34, Ḫašana is said to be a *mu-tir ṭe-me* of the *šaknu*. I think that we may reconcile these spellings most easily by giving *tar* also the reading *tir*. Then we have in every case *mutîr ṭême*. For the use of *târu* with *ṭêmu*; see Del. *H. W. B.* p. 297 b, and for *KU*=*ṭemu* p. 298 a.

The naggaru.

197. This title, written *amêl NAGAR*, is read in S[a] IV. 4 as *namgaru*. Another ideogram is *IṢ-ŠÚ-KÁR*. An upper *naggaru* is written *amêl NAGAR-GAL*, which Del. *H. W. B.* p. 448 a, reads *nagargallum*. This title is perhaps intended in no. 472, R 17, though the scribe seems to me to have written *GU-GAL*. The bearer of the title is Aḫulâmašši, who had previously been a *šalšu*.

On the other hand in no. 161, R 6 Ṣaiadi is called a *ràb naggaru*. In no. 50, 3 we find Girte described as a *naggaru* (*iṣu*)*APIN mugirri*. This I hold to be the more likely reading, though at first sight *dammugirri* is tempting. The root of *naggaru*, *ngr* (?) seems to have formed the participle II. 1, as *mugirri*. At any rate, there is no doubt that *mugirri* means 'one who constructs.' This then was the 'carpenter' or 'smith' who constructed the *APIN* or 'watering machine.' The *naggaru mugirri* is also named on K 14237.

In no. 328, R 9 we read of Babânu the *naggaru IṢ DUBBIN*. Now we must notice that the end of this ideographic expression is lost, so that we do not know whether we have to do with *IṢ-DUBBIN-KUD*, Brünnow no. 2721, =*gullubu*; or *IṢ-DUBBIN-BANŠUR*, Brünnow no. 2722, =*ṣupur paššuri*, or *IṢ-DUBBIN ZI-KAN*, Brünnow no. 2723, =*ṣupur sikkani*, or the variants in Brünnow, nos. 2725 and 2728. The *ṣupur paššuri* I take to be the 'claw of a dish,' that is its doubtless 'carved handle.' The *ṣupur kussi*, in no. 2728, or 'claw of the throne,' I take to be a carved claw on the arms, or back pillars, or legs of the throne. The *ṣupur sikkani* is perhaps the 'claw of a key,' i.e. 'the ward of a key.' The *gullubu* I take to be a wooden stamp for impressing clay &c. Hence I imagine the whole to give us the conception of a 'wood carver.'

I may remark in passing that Brünnow, following Delitzsch's *Lesestücke*, always quotes the list of wooden objects K 4338 a + K 4358 a, as K 4378. This list is now nearly completed by the fragment 83-1-18, 455, which I found to join it, on Feb. 8, 1898. The restorations given in *Lesestücke*[3], from a copy of G. Smith's, were due to Sm 1332. The duplicate, K 2016 a, was joined by me, in the summer of 1898, to K 4421, K 5419 b, K 8217, K 8238, K 9977, K 12905, Sm 1332, and 82-3-23, 150. A large number of further duplicates are known to me, several of which are not noted as such in the Catalogue: some not even being recognised as lists of wood. These texts I propose, if nothing prevent, to publish at an early date. They seem to constitute a fairly complete list of the Assyrian wood carver's and joiner's articles of manufacture.

In no. 178 Ardi-Ninip, in no. 159, Gabbu-ilâni, in no. 292 Abdi, in no. 231 Si'ḫutni, all bear the title of *naggaru*. This is certainly a 'carpenter,' see the Lexicons sub. voc. and especially *B. A. S.* I. 283. The (*iṣu*) *mu-gir-ri* is mentioned in the letters, Rm II. 6, *H. A. B. L.* p. 399, where the (*iṣu*) *mugirri* of the king is named, as if a 'weapon.'

The nasîku.

198. The *nasîku* was a chieftain, usually of non-Assyrian peoples. Nûr-Adadi, *nasîku* of Dagara; Ilâ, *nasîku* of Laḳê; the *nasîkâni* of the Iašilu folk; the *nasîkâni* of the Chaldaeans, and the *nasîkâti* of the city Laḥiru and the Nugu' folk, are mentioned in the historical inscriptions: see Del. *H. W. B.* p. 472 b. The same view is borne out by our documents. In no. 241, Ḥaldi-aḥ-uṣur is a *na-si-ku*; in no. 478, Ibnai is a *na-si-ki Bâbilai*, i.e. Chaldæan (?). In no. 269, we have, as witness, a *na-sik-ku šanû*, or '*deputy nasîku*.' The plural *amêl na-si-ka-ni* occurs on K 11468.

The nappaḥu.

199. This title is usually written with the sign *DÊ*, Brünnow's no. 6714; and S^{b} 292 gives *amêl DÊ*, as *nap-pa-ḥu*. Here the sign *DÊ* appears to have been pronounced *sîmûk*. The term *nappaḥu* seems to have reference to the use of a forge and bellows. Hence there is no doubt the word means 'a smith.' The sign *DÊ* has six slant wedges inserted in it, in Brünnow's List, but these are often reduced to three in the contracts. It then becomes uncertain whether *nappaḥu* or *ḳablu* is to be read. The three horizontal wedges at the beginning are also often reduced to two. At present therefore, we must reserve a positive opinion as to the reading of these titles. Possibly they are mere scribal eccentricities, but it may be that they mark some real differrence. For example, *C. I. S.* p. 114 reads one such as *qabli parzilli*. I do not think that is right, but perhaps it was not read *nappaḥ parzilli* either. Professor Zimmern, *G. G. A.* 1899, p. 250, makes the acute suggestion, that it may be the sign was really read *ṣarrapu* or *ṣarabbu*. In no. 626, rev. 4 Nabûa is said to be an *amêl ṣa-rab-bi* and in line 13, Nabûa is called a *DÊ ḫurâṣi*. Hence if this Nabûa is the same man, we may conclude that at any rate the 'goldsmith' was called *ṣarabbu*. We may compare, as Zimmern does, the Heb. צֹרֵף and the Phœnician מצרף. Dr Zimmern makes, in his footnote, the further suggestion that the whole art of the 'goldsmith,' along with its technical terms, at least so far as the root *ṣrp* is concerned, was not of native origin in Canaan and Syria, but borrowed from Assyria (or from Babylon through Assyrian channels).

In our texts, the goldsmith, written *amêl SIMUG-GUŠKIN*, is

often named. In no. 160, R 11, a witness Abkallipi son of Samunuiatuni is a goldsmith. The father's name, evidently Ešmun-iaton is Phœnician. In no. 244, Ḥambî, a witness, is called a *ràb SIMUK-GUŠKIN-MEŠ*, evidently a chief 'goldsmith.' This term points to a 'guild' or craft of goldsmiths with a president. In no. 345, Nûr-Šamaš is a goldsmith. In no. 415, the three witnesses ANMA-li', Susîa and Erba-aḥê are not only said to be goldsmiths, but of 'the city of goldsmiths.' This I hold to be; not a separate city, but a quarter of Nineveh, where the craft dwelt. The estate sold in this case, was in the *maṣṣaruti*, which I think was certainly in the outskirts of Nineveh. Part of it was also in the city of the goldsmiths, see line 6. In no. 171, Atâ is said to be *bêl âli* of the city of the goldsmiths. In no. 425, Kakî is said to be a goldsmith. The goldsmith Nabûa is mentioned, beside no. 626, on no. 440. On no. 548 a goldsmith was a witness and on no. 612 the name of another is given as Ardi-Ištar.

The iron-smith, *nappaḥ parzilli*, written *amêl SIMUK-AN-BAR* is less often named in our documents, which I take to be merely accidental, for in no. 711, we have a list of four together, Mutakkil-Marduk, Ašur-mušallim, Ašur-nâdin-aḥi and Išdi-Ašur. Compare also K 971, R 3, where 17 iron-smiths are named.

The bronze-smith, or *nappaḥ-êri* is not named in our documents, but occurs on K 1965.

The copper-smith, or *nappaḥ siparri* is named on no. 5: he was called Mankî. The title is written *amêl SIMUK-UD-KA-BAR*.

On the whole subject of metal work in Assyria, Winckler's *Altor. Forsch.* I. p. 159 f. should be read. The simple 'smith,' without specification of material, occurs written *amêl SIMUK*, in no. 5, Si'ṭuri; no. 50, Turṣu-ereš; no. 478, Amri-Ištar and in no. 587 we perhaps have a smith of Nineveh named; but this latter may be the place *ḳablu ša âli Ninûa*. I would remark here that many of the above smiths' names are foreign.

The sasinu.

200. The *sasinu*, usually written *amêl ZADIM* and therefore probably only a variety of the class of workmen called *ṣadimmu*, appears to be a worker in precious stones, 'a jeweller' &c. The writing *amêl ZADIM* is read in no. 281, where Pûlu is a witness and *sasinu*. In no. 379, Ulûlai was *sasinu* of the city of Ušimerai

and seller. So too on K 1358, Ḥarranai, of Ḥaltai is a *sasinu*. Also *amêl ZADIM-ni* where *ni* is clearly a phonetic complement, occurs in no. 68, where Turṣu-Ištar is a *sasinu* of Ašur. This may however be an error for *amêl NI-ŠUR*. On no. 513, (Nabû?)-šarr-uṣur is said to be an *amêl sa-si-nu*.

The paḫaru.

201. This term is written *amêl DUK-ḲA-BUR* which is given in v. R. 32, 18 e, f as *paḫaru*; see Del. *H. W. B.* p. 521 b for further references. The meaning 'potter, clay worker,' is certain. Their district is mentioned as a boundary of an estate in nos. 391 and 394. The estate lay on the side of the road to Têzi, and on the broad side of that city, and the 'district of the potters' must have lain between Nineveh and Têzi. It is not improbable that they formed a guild or craft. They lived all in one place, near their potteries of course. K 1537 gives the name of three potters as Ištar-abu-uṣur, Iddin-aplu, and Ḳurdi....

The pirḫinu.

202. This official, known to me only from our documents and the letters, is a higher order of temple official. He ranks above the *šangû* in no. 255. In nos. 302, 640 we have a *pirḫinu* of Nabû, in no. 394 a *pirḫinu* of *bît Kidmûri*. In no. 491 we have evidently a priestess (?), a *pir-ḫi-ni-te*, whose *amêl âli*, Baḫianu, is a seller. This lady is said to have 'cities,' *âlâni*, in her possession. It is clear that the *pirḫinu* was of high rank in the hierarchy. The name is spelt *pir-ḫi-nu* used in no. 255, of Bâbilu-bêlnu; in no. 440, of one... aḫuṣur; and in no. 548: but *pír-ḫi-nu* in no. 302 used of Eriḫi; in no. 640 of Nanî, in no. 642 of Dudû, and in no. 394. The title, if only spelt with *pir-ḫi*, might have been read *ummanu*, but the variant, *pír-ḫi-nu* settles its form. On K 1473, we have mention of six ladies, called *pir-ḫi-nat*; compare K 594, R 14, *H. A. B. L.* p. 81.

203. The *amêl ḳa-ši-i*, a title given to the witness Ḫandî, in no. 215, may really be a race name. As however we meet an *amêl BA*, and *BA* is the ideogram for *ḳâšu*, it seems possible that this is the phonetic reading of *amêl BA*. It does not seem likely that *ḳašu* here means 'to present.' See § 116.

The ḳurbu.

204. A term, which often occurs in the text of our documents, denoting one of the officials likely to put forward some claim over the slaves or estate sold, is the *amêl GUR-BU.* One might be inclined to suspect an abbreviation of *amêl GUR-BU-TI*, but this is known to be read *mutîr pûti*, and therefore *BU* is an unlikely abbreviation for *pûti.* Besides, the variation *amêl GUR-UB-šu*, points clearly to either *gurpu*, *gurbu*; or *ḳurpu*, *ḳurbu.* Of these forms, *ḳurbu* alone seems to have a suitable meaning. As we know from Meissner *A. B. P.* p. 125, *ḳurrubu* was the old Babylonian term for taking a case before a judge. At the same time, there is no doubt that it may be read some other way. There is nothing to indicate any ground on which the *ḳurbu* could claim, all we learn is that the buyer stipulated to be freed from the claim, by the seller's guarantee. A connection with *ḳurrubu* would point perhaps to some such meaning as 'plaintiff,' but with only one context to rely on, we cannot hope to be sure. The reading *GUR-BU-šu* occurs in nos. 423, 429, 446; *GUR-UB-šu* in nos. 244 and 422; *GUR-UB-šú* in no. 223 and *GUR-UB-šu-nu* in no. 498.

The ràb âlâni.

205. The term *amêl ràb* or, as its use in later Babylonian documents suggests, *amêl gallu*, is not found in our documents: see § 207.

The *ràb aba*, &c. are dealt with under the second terms, *aba &c.* There are two or three doubtful cases, in nos. 387 R 6; 435, 6; 448, 1; where *amêl ràb* occurs without any indication of how we are to complete the term. In some cases *ràb* occurs as the first member of a term, of which the second member has no independent significance, as an official title.

Thus the *ràb âlâni* is a title of obvious meaning, 'one over so many cities.' The cities meant, include 'villages, hamlets &c.' In some cases a single city is mentioned and then the form *ràb âli* is used. Thus in no. 301, 'Aplûa is the *ràb âli* of Laḥiru; in no. 261, Nabû-šarrâni is *ràb âli* of Ninûa, and below the two *ḥazânu* of Nineveh. The Queen Mother had her *ràb âlâni*, no. 301; so had the Queen-Consort, no. 447, called Martu'; and so had the Crown Prince, no. 278, called Sima'di. In no. 258, and 192 a, Bêl-aplu-

iddin is *ràb âlâni* of Tarbuṣê, in no. 126, Sin-imme is in the same capacity for the city...ḫusite. In no. 58, we have a *šanû* of the *ràb âlâni* named, i.e. 'his deputy.' The lady priestess, or *pirḫinitu*, in no. 491, had Baḫianu as her *ràb âlâni*. Usually the title is written *amêl ràb âlu-(plu)*, but once *amêl ràb âla-(meš)-ni*. Hence there can be no doubt of its reading *ràb âlâni*. The *ràb âlâni* is named in no. 59 as a possible claimant on the property sold. Hence he had the same sort of powers, in his district, as the *šaknu* &c. With this title compare the *bêl âli* above, § 184.

A list of names of those who bore this title may be useful.

Aḫu-lâmur	Mušallim-Ištar	Sin-imme
Aplûa	Nabû-zaḳip	Paḳaḫa
Baḫianu	Nabû-šarrâni	Šarru-nûri
Bêl-aplu-iddin	Sima'di	Šulmu-Bêl.
Martu'		

The ràb bîti.

206. The *ràb bîti*, perhaps a sort of '*major domo*,' is often named in our documents, without there being much indication of his functions. The 'house' in question may perhaps be assumed to be the King's: but we meet in no. 261 with a *ràb bît-ilâni*, of the city Aššur, by name Rîmâni-Adadi. In no. 127, Ašur-bêl-uṣur is called the *ràb bîti* of Carchemish. In no. 62, his *mâr šipri* is referred to. In no. 127, Ašur-bêl-uṣur; in no. 128, Balâsi; in no. 467, Bêl-dûri; in no. 507, Bêl-Ḥarran-šarr-uṣur; in no. 285, Sieru; in no. 194, Siesaka are termed *ràb bîti*. The title also occurs in the letters, e.g. K 11148, R 13, *H. A. B. L.* p. 244; K 567, R 10, *H. A. B. L.* p. 246. The *ràb bîti* of Aḫat-abiša is mentioned by Sennacherib on K 181, R 27, *H. A. B. L.* p. 195. As he brought Nabû-li''s letter, from the country of Tabal, we may presume that this lady was there at the time. She was a daughter of Sargon's, who had married Ambaris, prince of Tabal, afterwards king of Cilicia.

The ràb êkalli.

The *ràb êkalli* is clearly another form of the last title, a sort of 'steward,' or *major domo*, over the palace. It is applied, in no. 640, to Išdi-Nabû, and Nabû-šarr-uṣur; and several times, to others, whose names are not preserved. On K 5466, R 11, *H. A. B. L.* p. 89, the title is named.

The ràb ḪAR-BI.

On no. 160, we find Aḫu-úgur named as *amêl ràb HAR-BI* of the *ràb-BI-LUL*. Also on K 3042 a *ràb ḫarbi* of the *amêl*... is named, as a contributor to the temple. This ideogram *ḪAR-BI* may contain the same *BI* as the title *BI-LUL*. Whether it has anything to do with the *ḪAR-BE*, which was the special subject of the *bârû's* science, is not clear. It, however, seems that *ḪAR* alone has the same significance as *ḪAR-BE*; so possibly the *bi*, *be*, are phonetic complements to *ḪAR*: see Zimmern, *B. K. B. R.* II. p. 87.

207. The title *amêl ràb IṢ-KAK-MEŠ* which appears on no. 575 as that of a witness, may be read *ràb sikkâtê*. As *sikkatu*, in general, means 'a bolt,' this official may be a 'door-keeper,' but also many other things. The term occurs in Str. Nbd. 1099, and Zehnpfund suggests that we should read *ràb šiḳḳâte*, and connecting *šiḳḳat* with *šaḳû*, 'to drink,' should render 'chief cup-bearer:' *B. A. S.* I. 535.

The *amêl ràb kal-li-e*, who acts as witness on no. 328, by name Nabû-aḥ-uṣur, may possibly be the same as he who was over the *ḳalûtu*: see § 126. We may also think of the common later Babylonian word, *kallu*, for a slave. Perhaps this was a 'master of the slaves.' On Rm. 77, 6 the *ràb kal-li-e* is associated with the *ràb raksi*, *H. A. B. L.* p. 436. I am inclined to think that *kallê* denotes specially the 'labouring classes,' or slaves employed on public works: see § 228.

The *ràb mâti* is a title given to Išdi-Nabû and Nabû-aḥ-iddin, two witnesses, on no. 641. A comparison of the titles given to these men in other documents makes it certain, that *ràb mâti* is an equivalent of *ràb êkalli*: cf. no. 640. There seems at first sight to be a distinct set of officials, 'of the country,' that is to say, we have an *aba mâti*, a *ša šêpâ ša mâti*, a *šalšu mâti*, an *irrišu mâti* &c. In fact, the suspicion is raised, that *mâti* was used as if a person. It had the same set of servants as the King, the Crown Prince, or the Queen. Noting that *ràb mâti* is clearly the same as *ràb êkalli*, we can scarcely avoid the conclusion that the other officials are also to be understood as *aba êkalli*, *ša šêpâ êkalli*, *šalšu êkalli* &c. The person implied then is the King, Crown Prince, &c., to whom the palace belonged.

208. The title *ràb BAB-ŠE-RA* or *ràb BAB-ŠE-DA*, for the

text is not well preserved, occurs only once; on no. 275 R 6. It is borne by a witness, 'Ba-ḳa-me, who is a servant, of some sort, of the Tartan. If we read *BAB-ŠE-BAB* we should have *puḳlu*, which seems to be some irrigating machine; see Del. *H. W. B.* p. 536 b. This may be a variant of the same title.

The title *ràb ḳâtâti* given to a witness on no. 680, appears to be the same as *bêl ḳâtâti*, in § 187, q.v.

Whether the title *amêl UŠ-ḲA-TI* on K 594, 10, *H. A. B. L.* p. 81, which could be read *rêd ḳâti*, is a related title, is not certain.

The title *ràb šekisi*, if complete, is given to Bulṭai on no. 647. It is not at all likely to be a variant of *ràb šâḳê*. I prefer to see in *šekisu*, the same root as is seen in *amêl mušekis* § 152.

The *amêl rêd sigurritê* named in no. 677, is clearly a manager of 'the temple-towers,' or observatories: see Del. *H. W. B.* p. 262.

209. As observed already, under *šaknu*, the sign *ša*, *GAR*, is the ideogram for *šakânu*, and its derivatives. Hence, when *amêl* is followed immediately by this *ša*, we may well doubt whether it means *šaknu*, or the preposition 'of,' or the number IV. Thus in no. 284, R 8 a witness is said to be *amêl GAR bîti šanî*. It seems likely that this means a '*šaknu* of the second house': but *šaknu* is more generally applied to the official in charge, or command of a city or district. We might read 'the official, *amêlu*, of the second house.' In such a case as the *amêl GAR ḫu-si-ni-šu*, we could take it to mean *šaknu* of the *ḫusini*. Here however the *amêl III ḫusi(ni)šu*, and *amêl II ḫusinišu* warn us that we are probably to read, *amêl IV ḫusinišu*. Of course when a variant *šá* exists, in place of *ša*, we know what to do. The uncertainty is further complicated by the use of *ša* in the sense of 'who.' When we meet with an *amêl GAR eli*, we may doubt whether we are to read 'the *šaknu* over' or 'the official who is over.'

An obscurity is still attaching to the phrase, or term, in no. 696, B. E. 1 and R 4. We have 96 *šá UD-MEŠ* and 304 *šá UD-MEŠ*. Dr Peiser, in *K. B.* IV. p. 149, no. XIV., reads *ša ûmî* and renders *Tagelöhner* (?). We may however compare the *amêl UD*, which we have already had in § 190: and also perhaps *amêl UD-šu*.

210. A frequently occurring term is *amêl šanû*. It is written, equally often, *II-u*, *II-ú*, *II-i*, and *II-e*. The first sense in which it is used, seems to be that of 'second,' 'deputy.' The body of officials, called *aba*, seem to have had a President or *ràb-aba-(plu)*. He had a *šanû*, who was called *amêl šanû ša ràb aba*, that is to say, Vice-

President of the *aba* class. Thus, in no. 277, Ardi-Gula is *šanû ša ràbâsû*, 'deputy of the chief physician.' In nos. 377 and 470 Banî bears the same title. Nabû-erba was *šanû ša ràb urâti*, or 'deputy of the Master of the Stud': in nos. 174, 185, 200, 247, 444, 470, 529. Zizî is called *šanû ša ràb kiṣir*, or 'deputy *ràb kiṣir*,' 'lieutenant colonel,' in nos. 308, 309, 318, 361, 621, 623. A *šanû* of the *ràb âlâni* occurs in no. 58. In no. 261 Bêl-etilli is termed *šanû ša aba êkalli*, 'deputy of the palace scribe.' In no. 47 we find Mannu-kî-Rabi, called a *šanû ša sukallê*, or 'deputy of the *sukallê*.' This is not the same as a *sukallu šanû*, or 'second *sukallu*.' The *šanû* of the *šakû* is named in no. 371. Whether the *amêl II ḫusišu*, the title given to Nêrgal-šarr-uṣur on no. 115, is the same as the title *amêl šalšu ḫusi šanû* given to Abd-Aguni in no. 179, seems open to question. I think not.

A distinct meaning must attach to the official said to be *šanû* of a city. Thus in no. 35, Mannu-kî-aḫê, and in no. 177, Nêrgal-ibni are called *šanû* of Nineveh. In no. 160 Nabû-zêr-kêniš-lîšir is said to be *ḫazânu* and *šanû* of Nineveh. Here the phrase, *amêl ḫazânu amêl šanû*, can hardly mean the 'second' or 'deputy *ḫazânu*.' As there was undoubtedly a *šaknu*, or 'chief magistrate' of Nineveh, it seems more likely that the *ḫazânu* really was 'the second' in rank; and perhaps this is meant here. On no. 470 Ninip-ilai is *šanû* of Danai; on no. 625 Sin-šarr-uṣur is *šanû* of Laḫiru. In the latter case the *bêl paḫâti* stands first, the *šanû* second, and then the *šalšu*. Then in no. 118 Iaḫûṭi the *šanû* of Raṣappa is named, and another in no. 65. On no. 115 Arbailai; and on no. 468 Aḫiaḳar, are said to be *šanû* of Barḫalza. On no. 422 the *šanû* of Maganuba is named.

Here undoubtedly we have to do with an official, who is 'second' in rank, in the city of which he is *šanû*; under the *bêl pâḫâte* of the district, and of course next the *šaknu*, when there was one. There is some reason to suppose that when the city had a *ḫazânu* as well as a *šaknu*, the former was also the *šanû*.

211. A somewhat different meaning must apply to the *šanû* of the king's son, who is called Taḳûni, on no. 129, and probably on no. 130. Whether we are to take Ašur-rîmâni's title on no. 345 as *šalšu šanû*, of the king's son, i.e. 'deputy *šalšu*'; or '*šalšu* and *šanû*' of the king's son, is not clear. In any case, a 'deputy of the king's son' is unlikely. The *šanû* must here be merely a business representative or 'agent.' On no. 694 Mušallim-ilu holds this office.

The *šanû* of the palace in Laḫiru, called on no. 5 Ninip-aḫ-iddin, is clearly the officer 'second' in authority there. In quite a number of cases we have the title *amêl šanû*, without further information as to whose 'deputy' he was, or of what city he was 'second' in rank. Thus in nos. 48 and 49 Ulûlai, in no. 12 Bidada, in no. 285 Šarusi, in no. 241 Na'id-ilu, in no. 208 Erba-Adadi, in no. 121 Arbailai, and others in nos. 56, 65, 157, 588, 592, &c. bear this title. In no. 32 it is given to Sin-šarr-uṣur; as above we have seen he was actually *šanû* of Laḫiru, we may safely suppose that here also that is intended. We may therefore fairly conclude that the title *šanû*, when used without further specification, implies 'the second' in rank in some city. We are unable generally to supply the name of the city, and must in any case admit that the supposition requires further support.

In consequence of the ambiguity of this term, we may question what is meant by *šanûšu* in the list of persons, likely to intervene, with some claim over an estate: was the seller's *šanû*, 'his deputy,' or 'representative,' or was he the 'second' official of the seller's city? I decidedly think the latter, but the other is a possible view. This official is named, in this capacity, on nos. 59, 230.

When an Eponym Banba is called, as on no. 175, 256, *amêl sukallu amêl šanû* one may doubt whether he was *sukallu* and *šanû*, or *sukallu* of the *šanû*, or *sukallu šanû*. The last is the real fact, as no. 330 R 17 shews, where this Eponym is called *sukallu šanû*. On no. 485 a *šangû šanû* or 'second priest' is named.

The *bît šanû*, doubtless 'a second,' possibly 'summer palace,' is named on nos. 534, 537. It had a numerous household, see § 219. An *êkallu šanû* is named in no. 481.

A curious expression appears on no. 246, where a witness is said to be *šanîša arkišu*. The reading of *arku* is not free from doubt, in any case I do not know what to make of it. It is possible that we are to read *nappaḫu ḫurâsi*, which would suit Nabûa very well. Then, in the next line, another *nappaḫu ḫurâṣi* follows. Nabûa was, as we know from other contracts, a 'goldsmith.' Here he would seem to be their *šanû* or 'Vice-President.' All I can say is, the reading is doubtful.

The amêl šâpiru.

212. An *amêl šâpiru* is named on no. 474, as possibly intervening to assert some claim over an estate, 'a city with its people,'

sold. As this title follows the *šaknu*, we are probably to consider him as a 'messenger' sent by the *šaknu*. Del. *H. W. B.* p. 683 b, goes on to deduce the meaning *Regent*. If this be maintained, we must regard him as 'a ruler' of lower rank than the *šaknu*. An *amêl ši-pir*, named Ašur-mittu-balliṭ, occurs as a witness on no. 160; this also must be a 'messenger.' He is too low in the list for a high official.

213. As remarked above, an ambiguity attaches to the title *amêl ša eli*: the same doubt, in a less degree perhaps, applies to the title *amêl ša pâni dinani*. This title is written, on no. 177, with the sign *GAR* for *ša*, and so could be read *šaknu pâni dinani*, but nos. 153 and 154 give the other *šá*. Hence no doubt it is read *amêl ša pâni dinani*: and means 'one who is before the *dinânu*.' On no. 450 we have the title *šá dinâni*, clearly denoting the same office. On no. 204 we have *amêl ša pâni*, but the traces following are not those of *dinânu*. The lexicons give *dinânu* as 'person, presence.' Meissner, *Supp.* p. 32 thinks perhaps this title (?) can be differently understood. Peiser thinks, *K. B.* IV. p. 136, note °, that perhaps *dinânu* is a plural of *dînu*. For my part, I imagine *ša pân dinani*, 'one who is before the presence,' is as good a title as *manzâz pâni*, 'one who stands before,' or 'in the presence of.' The 'presence' in both cases is clearly the King's royal person. The idea is not unknown in other Courts than the Assyrian. On no. 260 Rîmâni-Adadi bears the title *mukîl apâti ša dunanâti*. It may seem rather an indefinite title, but even without any specified functions, one who has the *entrée* to the presence of the king is sufficiently distinguished to deserve a distinct title.

A similar title is the *amêl ša pâni êkalli*: it occurs on no. 464 where four of his slaves are witnesses. Compare K 594, 11, R 13, *H. A. B. L.* p. 81. In no. 575 R 5 we read of an *amêl šaḳû ša pâni bît ili*; a *šaḳû*, who has the right of entrance to the temple. That the reading of *ŠI*, as *pâni*, is correct is confirmed by K 1089, 5, *H. A. B. L.* p. 273, where we read that Aḫu-lî was an *amêl ša pa-ni êkalli*.

The šâḳû.

214. This is the reading I adopt for the term *amêl SAG*, in preference to *rêšu*; see Del. *H. W. B.* p. 685 a. As Delitzsch shews, *amêl ŠU-ḲA-GAB* is to be read *šaḳû*, we must probably read K 4395, 1. 4 as *amêl ŠÚ-ḲA-GAB*, and *amêl šaḳû*. The *šâḳû*

is necessarily an officer of some importance, but he does not rank very high. Perhaps his rank is really due to the position of his master. The *šâḳ šarri* or King's *šâḳû* occurs often; the title is borne by Ninûai in nos. 105, 182, 250, 254, 260, 214, 249. In the last case he is called *amêl šâḳû ša šarri*. He also appears as a simple *šâḳû* in no. 206. Others bearing this title are Mannu-kî-šarri in no. 128, Ašur-killâni in no. 425, Milki-nûri in no. 472, and others unnamed in nos. 434 and 694. The King's son has his *šâḳû*, Banî in no. 261, Atar-ili in no. 625, Nêrgal-šarr-uṣur in no. 416, Nabû-nâdin-aḥê in no. 334. The Queen's *šâḳû*, Milki-nûri, occurs in nos. 287, 627, 316. The *šakintu* had her *šâḳû*, Ruradidi, in no. 218, Rimti-ili in no. 356. There was a *šâḳ GAB-MEŠ* in no. 185 called Si'dalai; a *šâḳ šarri ša êli bît šarrâni*, in no. 48, called Nabû-šêzibâni; a *šâḳû ša pâni bît ili* in no. 575. Two *šâḳê ša bît šarri* are witnesses in no. 575, also a *šâḳû* of Šamaš and another of some god, perhaps two.

A *šaḳû* of Kummuḥ in no. 25, by name Nusku-ilai, seems likely to be a somewhat different official; the reading may be a scribal error for *šak-nu*. Adadi-aḥ-iddin, the *šaḳ LI-HU-SI* in no. 173, if the reading is correct, may be some headman over the 'tablets': a sort of 'librarian.' The *šâḳû* had a *šanû* or 'deputy'; see no. 371. The simple title *šâḳû* is borne by Nabû-ḳatâ-ṣabit on no. 35, Umu-bulṭi on no. 344, Nabû-šarr-uṣur on nos. 344, 386, Sukkai on no. 386, Nabû-killâni on no. 386, Nabû-dûr-uṣur on no. 218, Nabû-dûr-kuṣur on no. 227, Tarditu-Ašur on no. 275, Ša-Nabû-šû on no. 48, Milki-nûri on no. 452, Mannu-dik-alak on no. 641, and by others on nos. 177, 181 and 439. On no. 200 Aḥu-lamur is not only a *šâḳû*, but 'servant' or slave of Šamaš-abûa, and as such is sold. Taking all things into consideration, we may conclude that the *šâḳû* was a 'domestic servant,' and as such, perhaps a 'steward,' or confidential upper servant. See now Zimmern, in *Z. D. M. G.*, 1899, p. 115, who produces good reasons to regard *amêl SAG*, at least in some connections, as 'a cupbearer.' We should then read the title *šâḳû*, and derive it from *šaḳû*, 'to give to drink.'

A somewhat different title is the *amêl šaku*, which meets us on K 154, R 10, *H. A. B. L.* p. 278, with a plural *ša-ku-ú-ti* on K 1107, 9, *H. A. B. L.* p. 238. It appears not to be an Assyrian title, as it is borne by Bêl-eṭir and by Elamites. On Bu, 91–5–9, 183; *H. A. B. L.* p. 348, we read of a *ša-ku* of Babylon. So also on Sm. 1028, *H. A. B. L.* p. 441, Ubaru is a *šaku* of Babylon.

Compare also the later Babylonian contracts, *passim*. As the *ša* here may be the ideogram for *šakânu*, perhaps we are to read *šakkanaku*.

The šuparšak.

215. The reading of this title, written *amêl ŠÚ-UD-ŠAG*, is still doubtful. Del. *H. W. B.* p. 685, suggests that we should read *amêl šûd-šakê* and that it is really a variant to *ràb šaḳê*. Some things seem in favour of this suggestion. The title is of frequent occurrence in the historical inscriptions, see references in *H. W. B.* This officer appears above the *bêl paḥâti* and *šaknu* and if not actually the same as a *ràb šâḳê*, is certainly a superior of the *šâḳû*. The title occurs in our documents in nos. 646, 647, 649.

On the other hand we may compare the title of Eulmaš-šurki-iddina in III. R 43, 1. 30, who was a *šaḳ šub-bar ša mâtâte*. This is very like *šupar-šaḳ*: the change of *p* to *b* is thoroughly Babylonian. On the title compare Belser, *B. A. S.* II. p. 132. The officials which follow are in order the *šaḳê ša mâtâte*, the *paḥâtu ša mâtâte* and the *šaḳ šubbar ša ṭêmi ša mâtâte*. The *šaḳê* here may be the equivalent of the *ràb šâḳê*.

The Queen-Consort.

216. It may seem ungallant to place this lady so late, but the Assyrians themselves seem to have denoted her by a sort of periphrasis. The term *šarratu*, Queen, only occurs in no. 645; and there, as a title of a goddess, it is written *AN-LUGAL-rat*; evidently to be read (*ilat*) *šarrat*. It is so used in the historical inscriptions; *šarratu* and its synonym *malkatu* are chiefly applied to goddesses. I am inclined to think that an Assyrian would only use the term of a lady who reigned in her own right and not of the wife of a king. Professor Delitzsch, *B. A. S.* I. p. 615, was the first, I think, to recognise the meaning of *ŠAL-êkalli*, which he read as *zikrit ekalli*. As he says, 'the lady,' 'Dame des Palastes κατ' ἐξοχήν,' can only be 'the Queen.' George Smith had wavered in his opinions, but once thought the same.

The Assyrian kings had wives many. Probably one was the chief wife and therefore in some senses Queen, but I doubt if she was ever publicly associated with her husband. The case of Sammuramat, the queen of Adadinirari III.; see *K. B. I.* p. 192, is

certainly not an exception. She is named by Bêl-tarṣi-AN-MA, the *šaknu* of Kalḫi, on a statue of Nabû, which he vowed *ana balâṭ Adadi-nirari bêlišu, u balâṭ Sammuramat aššat êkalli beltišu*, 'for the well-being of Adadinirari, his lord, and the well-being of Sammuramat, lady of the palace, his mistress.' It will be noted that even this lady, undoubtedly a queen, is not called *šarratu* nor *malkatu*, only *aššat êkalli*. This title, written *ŠAL êkalli*, is applied to herself in no. 645, by Zakûtu; who says she is *aššat êkalli* of Sennacherib, *kallat*, that is daughter-in-law, of Sargon and mother of Esarhaddon. On the reverse, she calls herself Naki'a, *aššat êkalli* of Sennacherib, and *kallat* of Sargon and calls Esarhaddon her son. There can therefore be no doubt that she was Queen-Consort, if not chief wife of Sennacherib; if she had been able to call herself *šarratu*, I think she certainly would have done so. In no. 519, 7, according to a probable restoration, the lady buyer was called *aššat êkalli šá šarri*, which seems to shew that *aššat êkalli* does not necessarily mean 'wife of the king.' That is of course doubtful, on account of the state of the tablet: cf. no. 337, R 7. Judging by the rank which her *mukîl apâti* takes, in no. 444, R 13, above the *mukîl apâti* of the king's son, she was of higher rank than a Crown-Prince. This seems quite conclusive in favour of a Queen. We do not know the names of more than these two Queens.

The *aššat êkalli* had a large household, separate from that of the king. It included a number of men-servants. She had property in her own right. We read, in no. 447, of her *rab âlâni*, shewing that she possessed a city of her own, if not more than one. In no. 472 we find she had an *âl šê*, or country district, important enough to have its *ḫazânu*. Her *šâḳû*, called Milki-nûri, occurs in nos. 287, 316, 627. Her *rab kiṣir*, in no. 612, is Mannu-kî-Ištar-li'; Banunu was another. Her *šalšu* was Nabû-šarr-uṣur, in no. 612; her *mâr šipri*, no. 337, was important enough to have a *rab kiṣir* of his own, no. 494, R 8. She had an *aba*, Nabû-aplu-iddin, in no. 207. She had a *mukîl apâti* in no. 444, called Marduk-šarr-uṣur. She had a *tamkaru* in no. 357, an *išparu* in no. 642, and other officials in no. 261 and 272. Her *tukultu* stands above the Queen Mother's *tukultu* on 80—7, 19, 25; *H. A. B. L.* p. 411. It is not easy to say how we should read the title on no. 188, 2; but Mukinu-Ašur was certainly an official of hers. On no. 675 we have a list of four houses belonging to a lady whose title is written *ŠAL-LAT êkalli*. We may, however, read this *aššat*, taking *LAT* as the phonetic

complement *šat*. Otherwise, the *amat êkalli*, or 'maid of the palace,' may possibly be some less highly placed lady. This is less likely.

The case is different with the title that meets us on no. 317, 6, *ŠAL-ṢAB êkalli*. As *ṣâbu* is certainly a 'servant-man,' we must here have a synonym of *amat êkalli*. One may be tempted to view it as a proper name and read it Nûr-êkalli, to which the masculine name, Nûr-bîti, would give support, but on Esarhaddon's Sendscherli stele, rev. 44, we find that the king, when enumerating the captive family of Tarkû, puts first *ŠAL êkallišu* and next *ŠAL-ṢAB êkalli-(plu)-šu*. Here we have marked confirmation of the contention that *ŠAL êkalli* is the Queen, and a fairly strong hint that *ŠAL-ṢAB êkalli* is 'a concubine.' At any rate our no. 317 suggests that she was a *šakintu*, for she bears the same name, *Aḫu-dalli*, as did the *šakintu* of *Ḳabal âli*, in no. 232. In K 5466, *H. A. B. L.* p. 89, a very fragmentary letter, Ṭâb-ṣil-ešarra, mentions both Queen and *ṢAL-LAT êkalli* in a way that suggests their identity. At any rate the latter seems to have lived in the Queen's palace, and her sons are named. In no. 594 we read of the *ràb kiṣir* of the *ŠAL šarri*, which we must read *aššat šarri*, and take to be the Queen.

The ša šêpâ.

217. The very frequently occurring title *amêl ša šêpâ* is also written *amêl šá šêpâ* four times. It takes the form *šá amêl šêpâ*, in no. 105, and *šá šêpâ*, without any *amêl*, in nos. 105, 177, 470. In no. 177 we have a *mutîr pûti šá šêpâ*, in no. 470 a *ràb kiṣir šá šêpâ ša apil šarri*. The *ša šêpâ* of the king's son are also indicated in nos. 312 and 352. From these hints we may conclude that *ša šêpâ* was the name of a class of men who formed a *kiṣir*, and probably were a division of the army. We have already seen that there were *rakbu ša šêpâ*: § 163. On the whole I incline to the view that the foot-soldiers are meant. The *kiṣru ša šêpâ ša apil šarri* will then mean the 'Prince's Own Regiment of Foot.' The *mutîr pûti ša šêpâ* will be one of the 'Infantry Body Guard.' If the *rakbu* could be taken of a mounted rider, we might have an 'officer of the infantry.' It may however be that some other meaning is intended. It is noteworthy that in the enumeration of a *kiṣru*, on K 4286, a chariot appears to be included as an essential part of the force, which otherwise consists of archers and spearmen, who were certainly 'foot-soldiers.'

A list of names of persons having this title may be of service.

Aḫu-ilai	Ištar-ilai	Nabû-utarriṣ
Arbailai	Ištar-nâdin-aḫê	Ninip-na'id
Ardi-apli	Kabar-ilu	Ṣalmu-aḫê
Ardi-Ašur	Karḫai	Ṣalmu-šarr-iḳbi
Balâsi	Lakipu	Šamaš-upaḫḫiri
Bêl-šarr-uṣur	Mannu-kî-Ašur	Šêr-iḳbi
Ḫaldi-daia	Mannu-kî-Nabû	Šumma-ili.
Ilu-gabri	Nabû-šarr-uṣur.	Ugur-aḫê.

As to his position the *šêpâ* was below a *ràb kiṣir*, a *mutîr pûti* and a *rakbu*, and of course the higher officials, but on a level with the *šalšu*, above the *mušarkis*, the *tamkaru*, the *MU*, the *šanû*, the *SE-GAR* and the ordinary *mukîl apâti*.

This seems high rank for a common infantry soldier, but we have doubtless always to deal with a member of a permanent small force attached to the king's own person.

218. The determinative, *amêl*, appears written in the forms given by Brünnow, nos. 3881, 4951, and 6394. The two former pass, by almost imperceptible grades, over into one another. It is often impossible to say which of them is intended. All three are equally well read as *amêlu* and, as a determinative, *amêl*. For a discussion of the meaning of the word, see Del. *H. W. B.* p. 84: Muss-Arnolt, p. 57. The relative frequency of the two forms, for I reckon Brünnow's first two as the same, is about 9 to 7 in favour of the former. When there is any reason to distinguish the forms I transcribe the first two by *amêl* and the third by *AMEL*. This determinative is used as masculine in the singular, but is common to both genders in the plural.

The feminine determinative, written *ŠAL*, is to be read *amiltu* when it merely denotes 'a female person.' The reading *aššatu* is the proper antithesis to *mutu*, and properly is 'the wife,' as opposed to 'the husband.' The reading *amtu* for the form *ŠAL-LAT* is to be preferred, as an antithesis to *ardu*, written *NITA*; meaning 'a maid-servant,' as opposed to 'a man-servant.' When it is intended to indicate a masculine or feminine name, *TIŠ* and *ŠAL* are used. These I have left, as a rule, unindicated in my transcriptions; the capital letter at the beginning of a proper name being sufficient to mark it as such. In some cases, where doubt might arise as to the gender of the name, I have prefixed a (f) to indicate the female.

When these feminine terms are followed by the possessive pronoun *šu*, we sometimes find that a quasi-construct form, ending in *t*, is used, and, under its influence, *šu* becomes *su*. Thus, '*his wife*' is often written, *ŠAL-su*, to be read, *aššatsu*: as in nos. 261, 310, 430. The far more common form *ŠAL-šu*, is to be read *aššatišu*. So we should read *ŠAL-LAT-su* as *amatsu*, but *ŠAL-LAT-šu* as *amtišu*. *Amtu* is not used as a determinative in our documents: but see Muss-Arnolt, p. 62 b. *Aššatu* is not used as a determinative in our documents either, nor can I think it ever was. The determinative of males is *amêlu*, that of females clearly *amilti*, as K 3790 shews; see *K. B.* IV. p. 122. The use of *ŠAL*, as merely denoting 'the woman,' 'the female person,' is otherwise uncommon. That is to say, *ŠAL* is usually followed by something, further specifying the woman, except where it denotes 'a wife.' Examples of this detached use of *amiltu* are to be found in nos. 307, R 13; 321, 6; 61 R 2; 72 R 8; 86, 9; 94, 3; 711, 7. The plural *ŠAL-MEŠ* does occur, meaning 'wives,' and is then read *aššâti* in nos. 229, 253, 306, but also as not necessarily implying or suggesting more than 'females' and therefore to be read *amilâti*, in no. 427. The more correct term for wife, *ŠAL-DAM*, only occurs in no. 269.

219. A curious deviation from the above rule is when *amêl* is used before *šakintu* instead of the more correct *ŠAL*: see no. 339.

The sign *amêl* is used also to denote 'a slave' or 'servant,' thus in no. 457 we have 2 *amêlê* sold: so often to denote the slave sold. Here there seems to be a more respectful usage than in *nišê*, or *napšâti*, or the old Babylonian *SAG*, 'a head.'

Also the word *amêlu* is used to refer to persons already named, in the sense of 'the said persons.' Here we may have the more original meaning. The use of *amêl* as a determinative before *ardu*, slave, is curious, but it would probably be over-refinement to attempt to base any conclusion upon it. The slaves were 'persons' and were so regarded by the scribe.

The meaning becomes more indefinite when we find it used before *mâru*, 'a son.' What difference could possibly exist between *amêl mâru* and *mâru* simply, I fail to see. Hence when we have such a use as *amêl ṣâbê*, in nos. 90, 696; or *amêl ṣâbu*, as in no. 63, we can hardly regard *ṣâbê* as a class any more than *ardâni*. Hence I have not reckoned the *ṢAB-MEŠ* among our officials. It is a little different with *amêl ṣuḫarte*, which occurs in the enumeration of a family of slaves, in nos. 270 and 271. We have clearly the

same word in no. 471, where in lines 9 and 11 we read *mâršu ṣuḫartu*. I regard it as a mere adjective, meaning 'small.' At the same time the form is curious. I do not think *amêl* here constitutes a class. The *amêl êkalli* obviously denotes a mere 'servant of the palace': as in the name Amêl-Marduk. Here we have a usage foreign to our documents, but on K 858, lines 5 and 6, Arbai and Muṣurai are both called *amêl êkalli*. Hence the usage was known in Assyrian in our period. On no. 82–5–22, 112, we have mention of 300 *amêlê šá bît šanê*. On the word *amêlu*, and its relatives in other branches of Semitic language, see now, Winckler, *Forsch.* II. p. 312 f.

220. There are some official titles which as yet are unread. The most frequent is the *amêl RI(GAR)K*, i.e. *RIK* written with an inserted *GAR*. It is the sign given by Brünnow, no. 5205. Zehnpfund discusses it, *B. A. S.* I. 535, and guesses *riḳḳu* from Str. Nbd. 978 and Ašurb. IX. 90. There is no doubt that many later Babylonian contracts connect it closely with garden work. It is a compound of *RIḲ* and *GAR*: and may therefore denote one who has to deal with the *riḳḳu*. Also in *Str. Nbd.* 317, 496, etc. we read of an *amêl ràb riḳḳat*: in *Str. Nbd.* 1010 an *amêl riḳḳi*; and in *Str. Cyr.* 332 an *amêl riḳḳiûtu*. These certainly suggest that there was an *amêl riḳḳu* etc.: but the connection with our sign is difficult to admit. II. R. 30, 65 B.C. gives *RI(GAR)K-A* as *raṭbu*. It is therefore at least possible that the term was rendered by some derivative of *raṭâbu*, 'to water gardens,' thence 'to cultivate' in general.

The title is borne by Akdašilu in no. 345, Išdi-Ištar in no. 606, Mutakkil-Ašur in nos. 48, 49, 575, by Šulmu-aḫê in no. 357 and by Tarîm-Sin in no. 14.

In no. 310, 3, the female slave Nêrgal-danân is called an *amêl AZAG*...Is it possible to think here of the expression *AZAG, TA-GUB-BA*, Brünnow's 9904? This is read *manzazânu*, and means 'pledge,' according to Meissner *A. B. P.* p. 9. The *amêl AZAG-DIM*, or *amêl KU-DIM*, i.e. *kudimmu*, 'goldsmith,' is possible, of course.

221. The *amêl PA* does not occur in our documents, nor is any reading given in Brünnow, but on K 4761, 11, we find Marduk-erba spoken of as a *šaknu ša amêl PA-MEŠ*. One is tempted to connect this with the *amêl mukîl apâte*: see § 124.

The *amêl giṭ-ṭa-a-a* (*plu*) are not named in our documents, but occur on 79–7–8, 200, see Catalogue, p. 1716. It is natural to connect them with the *giṭṭu* of Del. *H. W. B.* 196 a. They probably

mean the scribes who attended the army to record the spoil, numbers of the slain, &c., and generally keep 'a reckoning.'

The term *amêl ràb-ràb-(meš)*, or *amêl GAL-GAL-MEŠ* occurs with some frequency. Perhaps it is the office referred to in the official name *ràb-DAN-DAN (MEŠ)*. If so perhaps we are to read *amêl galgalê*. On 83–1–18, 347, we have a number of officials, among them a *ša šepâ*, a *ràb išdi*, a *ràb batḳi*, a *SE-GAR* and a *ràb ŠA-ŠIT*, summed up as so many *amêl ràb-ràb-(plu)*. On 82–5–22, 112, we have mention of five hundred and twenty *amêl ràb-ràb-(plu)*.

The *amêl piḳitte* are mentioned in K 666, 6, and without the determinative, in K 583, 10, and K 482, 8, cf. 13. A parallel term is *bêl piḳittum*, 'an overseer' or 'foreman,' 'manager,' &c.; the *piḳittu* was the 'instruction' or 'direction,' and this was the official who carried them out: see Del. *B. A. S.* 1. and now *H. W. B.* p. 535 b. A plural form *pi-ḳit-ta-te* occurs, on K 9669, 11, where we have an *aba ša êli piḳittati*, a title which also occurs on 82–3–13, 13, l. 3.

222. The *amêl ma'-as-su* occurs several times on K 8103 in connection with various assignments of persons and property. The term appears in Del. *H. W. B.* p. 388 b: but there *ma'assu* is a bye-form of *ma'attu*, 'many.' The term here must have some other meaning, as *amêl ma'assu* certainly does not mean, 'many people.'

The *amêl ša bit-ḫal* is evidently one who looks after 'the steeds,' *bit-ḫallê*. On K 8103 II. 5 we read, *2 amêl ša bit-ḫal ina pâni Šabagiššê šà bîti amêl ràb šâḳi*.

The *amêl PA-GUR-ŠE-âlâni*, perhaps *amêl SIG-GUR-ŠE-âlâni*, occurs on K 8103 II. 7; where one of them is in the charge of Zêrûti, the *ràb kiṣir*.

The *amêl ša-pu-li* or *šabuli* is named on K 1577, where it appears that Kiṣir-Ištar says that his *šapulu ina šapal Šulmu-šarri amêl šâḳû mât Kusai etarab Šulmu-šarri amêl mutîr pûti ina muḫḫia issapra*, &c.; that is, as I render it, 'his *šapulu* came to (lit. under) Šulmu-šarri, the chieftain of Kusu, and Šulmu-šarri sent his bodyguard to me.' Here *šapal*, usually meaning 'under,' means probably only 'to,' perhaps with the idea of 'up to,' implying that Kusu was a hill country. The *šapulu* may be a 'servant' in the sense of 'underling': compare the use of *ša šêpâ*, which may be read *ša šapal*: and perhaps was always read *šapulu*. It may be worth noting that Brünnow,

no. 5202, gives *šapulu* as a reading of the ideogram referred to in § 220, but with the added signs *šad-du-a*.

223. Above under *šaknu*, the *amêl GAR-MAN* has been read *šakin šarri*; but on K 1473 we have some females termed *ŠAL-GAR-MAN-MEŠ*. If we take *ŠAL-GAR* as an ideogram for *šakintu*, we have the singular, *šakintu šarri*, followed by the plural sign. That this is the correct reading is suggested by the fact that the *ḳablâti* appears to precede. We know that the *šakintu* was associated with the *ḳablu* of a city. At the same time, it is well to call attention to the possibility that *amêl GAR-MAN* may not be really *šakin šarri*.

In K 1995, which contains a long list of names, with a few titles, we have a term *susanu*; of which the meaning is not obvious. Thus, in line 19, Lubalaṭ is called *amêl su-sa-nu u-ri-e*, and lower down we have four *amêl su-sa-ni*.

It is possible to think of a connection with *sisu*, a horse, and the *urie*, 'stables,' favours that connection. It is less likely that the *sasinnu* is connected. The *šušanu*, of the times of Darius onwards, discussed by Hilprecht *B. E. P.* IX. p. 44, *notes*, appear to be some menials, but not in the position of ordinary slaves. They were forced labourers, and seem to be connected closely with the *bît sisê*.

The composition of the kiṣru.

224. The text K 4286, which is probably a letter or report to Sennacherib, on military affairs, mentions numbers of persons, apparently soldiers, of various nationalities. The defective state of the text makes much of it unintelligible to me. Consequently I shall merely call attention to a few of the items that seem to illustrate the nature of the Assyrian forces. Thus we have 50 *A-RIT Am-ḳa-a-a-šu*, 3 *amêl BAN Kušitai*, 23 *ditto amêl Dammaḳûte*, 12 *ditto Kipritai*, 7 *ditto Ḥindarai*, which are summed up as 50 *amêl A-RIT*, 40 (*sic.*) *amêl* (*BAN*) in all 100 *amêl ṣâbê*. We have already seen that *amêl A-RIT* is 'a spearman': as *amêl BAN* is an 'archer.' In Captain D. A. Billerbeck's invaluable account of the Assyrian army, *B. A. S.* III. p. 167 f. we see that the archer and the spearman fought side by side, and as I have pointed out in § 125, 'the fifty' seems to have been the 'company unit.' Perhaps this always implied fifty couples, each consisting of a spearman and an archer as here. In this particular case, there accompanied the above, two

horses and 5 *ṣâbê ša narkabti*..., and seemingly these five chariot men, with the 45 archers, are counted to make up the hundred. The next group appears to have contained 109 men: but the items are not all preserved. There were, however, 4 horses, apparently belonging to or under the charge of Nabû-aḫi-ddin, and some more under Gadîa; several groups of archers, 24 Ḥiritai, 7 Samirnai, 21 (?) Maḳaratai, &c. The next group seems to consist of archers alone; 4 Labdudai, 4 ditto, 12 ditto, 4 Ḥindarai,... 3 ditto, 14 Martenai, 20 Raḫiḳuai, 6 Paḳudai. The scribe makes two totals next, he says 'in all 121 *amêl*..., in all 209 belonging to Zagaga....' It is clear that something has dropped out; there seems to have been another number to the right of each of the last eight lines; these numbers may have made up the missing total. Then comes the very important passage, 'one chariot,' 2 *U-ra-a-te imêr* (*KUR-RA*), 4 *u-ra-a-te imêr GIR-NUN-NA*, 14 *imêr* (?)..., 33 *ṣâbê narkabti*, 35 *ṣâbê* (.....), 50 *A-RIT*, 95 *nîšê bîti namê šá kiṣir šá Nabû-aḫi-ddin*. Here we have some interesting points. Again a chariot is part of the regiment. The term *urâte*, generally read 'mares,' is here used as applying to the female mule (?). It is difficult to reconcile the scribe's totals without having a complete text before one; hence we do not easily identify the 33 *ṣâbê narkabti*. The *nîšê bîti namê* seem somehow to be connected with the items before the name Zagaga... who is called the *amêl raksu* of the *bîti na*(*mê*). We clearly have an example here of what a *kiṣir* really might include.

There follow; 20 *âl Kakzu*, 20 *âl Kar Bêlit*, 5 *âl Dûr Sin-aḫê-erba* and a total 400 and more. These must be additions to the above and in all formed what the scribe calls *emûḳi* of someone unknown.

The peoples furnishing their quota to this *kiṣir* are of importance. Professor Dr Bezold has already conjectured the period to which the list may belong. I do think that at the time they were enrolled in this regiment, the foreigners here named were actually resident in their native lands. They were surely slaves. Whether this liability to be called up for military purposes always lay upon the slave, or whether one campaign was sufficient to satisfy it, we do not yet know. The seller of slaves however often guaranteed that his property was not liable to any further claim of the kind. Hence we may surmise that it could be discharged before the slaves ceased to be saleable, and at any rate, either by service or payment, could be avoided. It is interesting to note the presence of Samaritan slaves (Israelites?) in this regiment.

The obligation to furnish soldiers.

225. It has already been remarked, § 116, that the Itu'ai, originally an Aramaic folk, appear in the list of officials, as if the name had passed over into the designation of a caste. We find in the letters an Itu'ai spoken of, as if a military rank or grade of soldier: see K 690, K 11148, and 83–1–18, 24; *H. A. B. L.* p. 200, 244 and 442: also K 1881, Winckler's *Samml.* p. 67. Certainly here there is little indication of identity with the *ittu*, given as an official title by Muss-Arnolt, p. 128 a. Everywhere there seems to be a racial character, the name being spelt I-tu'-a-a. The names of these officials, Bibia, Tarditu-Ašur, Belišupuṣi, Iadi', Iada-ilu also suggest foreign nationality. Further they seem to have been allowed to possess land in return for military service. Professor Dr Hilprecht, *B. E. P. A.* x. p. 36, &c. has shewn that in Persian times a plot of land known as a *bît amêl BAN*, *bît bêl BAN*, *bît* (*iṣu*) *BAN* or simply (*iṣu*) *BAN*, is a piece of land held subject to the requisition of 'a bow.' Hence it seems that land was then held subject to the condition of furnishing a bowman for the army. This custom seems however to have been in force two centuries before in Assyria. On K 690, *H. A. B. L.* p. 200, we read of *eḳlu ḳaštušu*, literally 'the field, his bow,' or the plot of land held subject to furnishing an archer. If, in Assyria, the field was called its owner's 'bow' on any other ground than this, then assuredly Professor Hilprecht's explanation of the expression in Persian times must be mistaken. He has however rendered it perfectly convincing to me. I cannot imagine any other explanation that could account for the passages he quotes. It seems to me certain therefore that also in Assyrian times land was held subject to the condition of furnishing an archer. The conquerors of Nineveh in all probability adopted many of the Assyrian customs, and if this sort of military tenure was really introduced into Babylonia by the Persian dynasty, it was probably transferred from Assyria. It remains to be shewn that it was not already native in Babylonia: see Str. *Nbk.* 220.

Of more immediate interest is the fact that an Itu'an holds land on this tenure. The text is not completely preserved, but the words which follow immediately, *šê innu*, *ŠE-PAT-MEŠ zakû* seem to me to imply that the grass and corn crops were exempt. That is to say, while the military officials could levy a demand for corn and fodder on lands not so exempted, the field called a *ḳaštu* was free from any

further demand beyond its 'bow.' For another species of contribution due to the State, apparently from the citizens, called *rikis ḳablu* and clearly meant to provide a soldier and his equipment, see now Kohler-Peiser, *A. B. R.* IV. p. 8, and § 234.

The amêl GAR-MEŠ.

226. That *GAR*, or *ŠA*, not only means *šakânu* and its derivatives, but is an ideogram for *akâlu* and its derivatives, introduces a further ambiguity into this title. In a very large number of texts, *GAR* or *GAR-MEŠ*, distinctly means 'food.' A very instructive passage occurs in K 629, R 8 f., *H. A. B. L.* p. 60. The sacrificing priests slew the animal offered and made the offering; *epêšu*, 'to do,' does mean 'to offer' in Assyrian. Then the writer goes on, *šá* 1 *ḲA aklîšu úšellâ ina bît Nabû ekal*, 'of one *ḲA* of its flesh (lit. food) they offered, in the temple of Nabû, they eat it.' The examples given in Del. *H. W. B.* p. 54, would be sufficient, of themselves, to establish this use of *ŠA* or *ŠA-ZUN* in the sense of *akâlu*, 'food.' The passages in the letters are too numerous to quote, one may suffice. On K 582, 17 f.: *H. A. B. L.* p. 161, we find that 2 *ḲA ŠA-MEŠ*, 2 *ḲA BI-MEŠ*; that is, 'two *ḲA* of food, two *ḲA* of drink' for the *mašmašu*, and one *ḲA* of food, one *ḲA* of drink for the *pirḫinu* were reckoned the *ginû* of *bît Nabû*: cf. K 569, 14: *H. A. B. L.* p. 70.

When therefore in our texts we note that in no. 48, a sum of money is reckoned the *ginû* of Ašur, and in another place, no. 44, a sum of money is said to be for *ŠA-MEŠ bît ili*, we may feel sure that here *ŠA* means 'food,' and not persons. On the other hand we may wonder why there was interest charged for the non-return of the money, if 'food' had been expected for it. The sense of 'food' may possibly also suit the *ŠA-MEŠ*, on the inside of no. 159. But on no. 617, where either two sellers or two slaves are said to be *ŠA-MEŠ-e* of the *tukultu rabû*, we are bound to regard the term as a title.

The use of *amêl ŠA* to denote *šaknu* is beyond doubt: see § 177. Not all the cases where it occurs, however, are quite certain, and it seems at least possible that the *amêl ŠA-MEŠ* was one who had charge of food. On K 122, R 2, 18, *H. A. B. L.* p. 41, an *amêl rab ŠA-MEŠ* is mentioned in such close connection with a temple, its priests and their 'food,' *aklišunu*, that we can hardly refuse to

read the title *ràb aklê* and suppose him a 'chief of the larder.' The title *SE-GAR* can be read *nâdin aklu* and may belong here. Still some reason for doubt must remain, he might well be a *ràb šaknûti*.

227. On K 620, 14, R 4, *H. A. B. L.* p. 82, we have mention of an *amêl ràb pilkani*. Del. *H. W. B.* p. 527 a, gives the meaning of *pilku*, as 'district' or 'region.' However the *ràb pilkani* appears to be concerned with repairs in this letter.

Other liabilities incumbent upon land.

228. In the clauses relating to the sale or lease of land we shall find a number of officials named as likely to exercise claims on the land, its crops or its serfs. The object of the buyer was to obtain from the seller a guarantee that these claims would not be put in force against him. Of course when the king made a 'proclamation,' or granted a charter, he was in a position to grant exemption from all territorial dues and military or State claims. This was called 'freeing' the land, the king used the word *uzakki*, 'I have freed'; the land was called *zakû*, 'freed.' It is not so easy to see how a private person could exempt his estate from State obligations. He may of course have bought off the living State officials by a bribe; or he may have made a legal agreement with them, and compounded, by payment or by service rendered, for future claims. A valuable light is thrown on these points by Ṭâb-ṣil-ešarra in his letter to the king; K 5466 *H. A. B. L.* p. 89. He was, as we know, *šaknu* of Aššur, and therefore he had a right to the service of all the district of Aššur, for such work as repairs. Also we know that Sargon 'freed' the city of Aššur. Ṭâb-ṣil-ešarra accordingly states rev. 6, *kî šarru bêli âl Aššur úzakûni ilku ša âl Aššur ina muḫḫia kariruni*; 'when the king my lord freed the city Aššur, the *ilku* of the city Aššur was rendered unavailable for me.' Hence he goes on to state that, when he wished to do some repairs to the palace of the Queen, at Êkallâte, the freedom, *zakûte*, was pleaded against him. He therefore enumerates the persons who would have been or were liable; 370 were *ṣâbê* and 90 *mâr šâbê* of the king, 90 were *ša kutalli*; of these 190 should do the king's work. Apparently he leaves it to the king to decide what these people should do, or how the work was to be done. In spite of the obscurities, one thing is clear, the freeing of a city put its *šaknu* to considerable incon-

venience, when repairs had to be done. Further, I think it is certain that this forced labour was part of the *ilku*. Also it seems clear that the *amêl šîmu*, written *amêl ŠAM-MEŠ*, see § 117, whom I take to be 'bought slaves,' are the persons who had been exempted and the *šaknu* had to fall back on the service of those who were *ṣâbê šarri*. These *ṣâbê šarri* are also named on K 525, 18, *H. A. B. L.* p. 253. The lot of an ordinary slave seems to have been, then, that when a *šaknu* needed his services for repairs to a building, he might be 'pressed' as a *ṣâb šarri*.

The freedom, *zakûtu*, of the city or estate, released the citizens, *mârê* of the city, from this claim on their bought slaves.

This claim is obviously the same as the *arad šarrûtu* and *amat šarrûtu*, or liability to be claimed as 'slave of the king's,' which is so frequently mentioned in the later Babylonian documents: see Del. *H. W. B.* p. 518.

It seems not unlikely that the *kiṣir šarrûtu*, see Del. *H. W. B.* p. 592, and Winckler's *Forsch.* I. 406, was of the same character. Sargon himself states, see Winckler, *Forsch.* I. p. 404, that the inhabitants of Aššur had been subjected by Shalmaneser IV. to this indignity. They were called upon to contribute personal service on building works. Sargon also says that he had made them free from *dikût mâti, šisîtu nâgiri ina miksi kâri*, &c.

The consequence was Ṭâb-ṣil-ešarra's embarrassment related above.

229. In some of the 'Kudurru Inscriptions,' as Belser calls them, *B. A. S.* II. p. 111 f., we find the same state of affairs. The king freed a certain estate from its territorial dues. What these were may be assumed to be the same as in Assyria: the terms even are similar. The whole liability in Assyria is usually summed up as *ilku dupšikki*. The Babylonian form is *allu dupšikki*. There is a considerable division of opinion as to what the exact and original meaning of these terms was. See the Lexicons under *allu* and *dupšikku*. The term *allu* in this connection does not occur in our documents, being always replaced by *ilku*; but *allu* occurs in the Assyrian historical inscriptions: Sargon, Esarhaddon and Ašur-bânipal refer to it. The meaning 'chain' is unlikely to be properly what is intended, because the free subjects of Sargon had borne it as well as slaves. The determinative of wood before *allu* in I. R 49, Col. IV. 5, &c., makes Delitzsch's suggestion of 'a basket' or 'sack' very likely. Certain it is that Sm 2276, which was a sealed label on

a sack, or something of coarse cloth, professes to be the *ilku*; see no. 766. Further, on no. 370, we read that *ilku ištu eburi illak*, *i.e.* 'the *ilku* shall be taken from the harvest.' So on Sargon XII., *S. A. V.* 1, we find that the *ilku* did not hold good that year in Dûr-Sargon, *ilku la ilakka*. Putting these very slight hints together, I am of opinion that the *allu* and the *ilku* are the same thing, that they denote not 'a badge of servitude' or public works, but the responsibility to furnish supplies in kind for the State service. When therefore Ṭâb-ṣil-ešarra above wanted materials to repair the palaces, he was met by a plea on the part of the *mârê Aššur*, against such requisitions, that Sargon had set them free. Hence it seems to me that Professor Jensen was right when he referred *allu* to 'land tenure': see *Kosmologie*, p. 392, and *Z. A.* II. 211 f; VII. 217. Further it is possible that the *ḳašdu* which is given as a synonym of *allu*, is really due to a mistaken etymology or a play on words, and that while both *allu* and *ḳašdu* mean 'mighty' and hence 'power,' the *allu* is really a synonym of *ḳaštu* 'the bow,' which also denotes the estate liable to furnish the equivalent of a bowman and his associated spearman. I do not mean to assert that *allu* is 'a bow': only that there seems reason to think that the *allu* denotes the same territorial liability as the *ḳaštu*.

230. The *ilku* is twice associated with the verb *illak*, as we have seen above. Delitzsch, *H. W. B.* p. 70 a, does not give a derivation. So far as these two sentences go we might assume the verb to be *alâku*, 'to go.' But there is another verb *alâku*, see Del. *H. W. B.* p. 69 b, whose synonyms contain the senses of 'to serve, do work, &c.' Hence it seems very likely that the word *ilku* is merely 'service,' and specially 'service due': compare *ilakku* 'an offering.'

231. The actual meaning of *dupšikku* seems to be the reed or straw 'hat,' worn by the workmen, who were employed on forced labour: see Del. *H. W. B.* p. 227. What its connection with *duppu*, tablet, may be is hard to see, the likeness may be only apparent. In the so-called 'Tablet of warnings to kings against injustice,' published IV. R. 48, *dupšikku* is continually mentioned as a burden which the king was not to lay upon the inhabitants of Borsippa, Nippur, and Babylon. Among the imposts, from which this charter exempted those cities, is also named *šasîtu*.

232. The character of the obligations, lying upon certain estates to furnish unpaid labour for the maintenance of public works,

differed with locality. Of the greatest importance was naturally the maintenance of the canal system. Those liable to execute repairs on the canals are called *kallê nâri*, on the Babylonian boundary stones, see Belser, *B. A. S.* II. p. 150. With these are associated the *kallê tabâli*, probably those who repaired, with bricks, or masonry, the sides of the canals: compare the *kallê šarri*, a parallel to the *ṣâbê šarri* above. These terms do not actually occur in our documents, but they illustrate several points in them.

Thus in no. 650 and the parallel places of nos. 646, 647, 648, &c. we find that an estate is set free from the *miksu kâri nîbiri*: *miksu* is the proper word for 'custom, impost.' K 56, Col. III. 2–8 shews that a *miksu*, 'an impost' or 'tariff' of one-half, a third, a fourth, a fifth, a tenth, &c., might be imposed. K 246, Col. I. 72, speaks of a *maksûtu ša ina ḳaḳḳar eṣrit*: 'an impost on what is exposed on the quay.' The official who collected or extorted this tax or duty was called the *amêl ma-ki-su* or *ŠA-KUD-DA-GA-A*, on II. R. 38, 9, e. f. Delitzsch, *H. W. B.* p. 407 b, adds to the above *ma-ak-ka-su*, a title probably, and forming one group with *ša'u* and *malâḫu*. The *makkasu*, which occurs so often in Strassmaier's texts, *H. W. B.* p. 407 b, is said to be a 'sort of date.' The passages, there quoted, however, seem to me quite consistent with *makkasu* being only an indication of the purpose of the dates, either to defray an impost or as forming part of its payment. So too, the *makkasu*, which Delitzsch suggests to be an article made of gold or silver, seems to be the same; thus in Str. II. 673, 10, 'so much silver,' *makkasu labiri ša* (*ilu*) *Šarrâte*, 'the old duty,' or perhaps 'obsolete tax,' due to Šarrâte: and so on. The root *makâsu*, apparently unknown to Delitzsch, is to be found on K 4844 b. A very tempting comparison may be made with the *amêl mu-še-kis* and the *ràb šekisi*. At any rate these two officials may well be 'tax-gatherers' and 'customs officers.' The *miksu kâri*, I take to be 'wharfage': the *kâru* was 'a dam' on a canal and also 'the wharf' at a port: Muss-Arnolt, p. 429 a. The *nîbiru* was 'a crossing' or 'ferry,' and the *miksu nîbiri* were 'the ferry dues.' Such at any rate seems possible. The dues, so exacted, were the outcome of, and composition for, the obligation lying on estates bordering upon, and benefiting from, the use of a canal or ford; and were devoted to the maintenance of its good repair.

233. The calling out of troops for military service was expressed by the verb *dikû*. Thus the king says *narkabâte ummanâtêia adki*,

'I called out my chariots and troops,' or even *mâta adki*, 'I called out the land.' For references and further examples, see Del. *H. W. B.* p. 216. The abstract liability to be summoned to bear arms was called the *dikûtu*. This word occurs in our documents in nos. 646, 647, 649, 650, where the king expressly frees the estates in question from *dikût mâti*. So too one of the wrongs which Shalmaneser IV. had inflicted on the city of Aššur was this 'conscription.' See Winckler, *Forsch.* I. p. 404 f. It was one of the 'injustices' against which the king is 'warned' in *D. T.* 1, IV. R. 48, l. 25 a.

It is tempting to connect the *bêl dikti* of nos. 646, 647 and 648, with *dikûtu*. To call the great general 'a lord of the levy' would be not unnatural; but, in the context, rather awkward. The phrase in Rm 76, R 1, *H. A. B. L.* p. 371 *ilâni rabûti ša šami erṣitim ṭa-ab-tu di-ik-tu ana liplipi ša šarri bêlia lîpušu*, shews that it must mean some 'favour,' and is closely parallel to *ṭabtu*.

234. Another word for this 'call to arms' may have been *šasû*. At any rate the *šisîtu nâgiri* is coupled with the *miksi kâri* as one of the indignities and burdens which Shalmaneser IV. had inflicted on the city of Aššur and from which Sargon freed it. As *dikût mâti* precedes it, we may doubt whether its meaning was identical with that. The duties of the *nâgir êkalli*, who is probably meant here, were concerned rather with public works than with war. The ideogram for *šasû* is *DÉ*, which is often read *ḳablu*. As the passages quoted in Del. *H. W. B.* p. 579 amply shew, *ḳablu* is used of the assemblage of men for war. From the same root comes *muḳtablu*, the 'soldier.' The common phrase, *ana epêš ḳabli u taḫâzi*, 'for joining battle'; and the close association of *ḳablu* and *šasû* in K 257, point to a close connection in thought and usage. The ideogram for *šisîtu* given on K 8760 ends in *DÉ*. Hence I consider that the *ḳablu-abgabe*, of which Kohler-Peiser, *Aus. Bab. Rechtsleben*, IV. p. 8 ff., speak, is really to be read *šisîtu*. It was, as they shew, in later times, the obligation to find a soldier and his equipment, or to pay a contribution for the same. There is no doubt that the nature of the obligation was much the same in Assyrian days. It is interesting to notice that the freedom from *šisîtu*, which Ašurbânipal confirms to Babylon, Borsippa and Nippur on *D. T.* 1, IV. R. 48, disappeared later under Cambyses and Darius. This liability has at least a superficial resemblance to the *aes militare* of the Romans. The equipment for a horseman in the 9th year of Darius, for a three years' expedition was; 'one ass, costing 50 shekels, six shekels for

his keep, 12 cloaks, 12 shirts, 12 under-garments, 12 leather cover-lids, as waterproof blankets (?), 12 pairs of shoes, one *PI* of oil, two *PI* of incense (?), 2 *PI* bdellium.' This was a fairly liberal outfit considering the times and the climate. The term for equipment was *ṣiditum*. It is noteworthy that we have no mention of the soldier's arms. They were probably found for him at headquarters.

235. As Winckler has shewn, *Altor. Forsch.* I. p. 404 f., the term for 'building' used to express forced labour on public works is *ḫubšu*. Also a synonym of this word appears to be *ḫamma'u*. See the lexicons under *ḫabâšu* and especially Meissner, *Supp.* p. 37. The men employed were called *ṣâbê ḫubši*.

The tithe.

236. I have failed to detect, in our documents, any mention of the *ešru* or 'tithe.' The penalty, which is so often invoked against one who breaks his contract, that he shall pay the price *ana ešrâte* to the injured party, can only mean a personal payment. Whatever its amount, it was no payment to the government, nor to any temple. When these payments are intended they are expressly stated, and often occur along with the payment *ana ešrâte*. The *ešru* is continually mentioned however in the later Babylonian contracts, as 'a tithe' payable to a king or temple: see Tallqvist, *Spr. Nbd.* p. 52, Kohler-Peiser, *A. B. L.* IV. p. 7 f. It was payable, for a group of persons, by one of the party; as a 'tithe-payer,' to the 'tithe-owner,' directly, or to his representative. It could be treated as an asset, and was negotiable. Hilprecht, *B. E. A. C.* IX. p. 36, shews that, probably as an estate, the *bît ḳaštu* was also to be regarded as a *bît ešrû*; that is to say, the estate which was under obligation to furnish a 'bow' also had to pay 'tithe.' The tithe appears to have been mostly paid in kind. In the example taken by Kohler-Peiser *l.c.* it was associated with the land called a 'bow': and was then paid in 'corn.' The amount from one 'bow' of land seems to have been 25 *GUR* 4 *PI*, but it is not stated how many persons together paid in this amount, certainly there were several; and they may have had more than one 'bow' of land between them.

There was a *miksi ešrîti*; see Muss-Arnolt, p. 122 a.

It is doubtful whether the *ràb X-te* of K 4395, III. 22 is really to be read *ràb ešrîti* and rendered 'tithe collector,' or 'tithe owner.' The observer, who reports, in K 88, an eclipse of the moon, to the

irrišu, calls himself the *ràb X-te* of Nineveh; see III. R. 51, No. 7, l. 3. So Ištar-nâdin-aplu, on K 78, III. R. 51, No. 5, l. 3 calls himself the *ràb-X-te* of Arbela and reports to the king the invisibility of the moon on a certain day. On K 297, III. R. No. 6, l. 3, the same observer, writing to the king, on the same subject, calls himself the *ràb X-te* of the *aba* (*plu*) of Arbela. It is very improbable that a 'tithe collector' would be called upon to make astronomical observations. If the title has anything to do with the number 'ten' at all, it is more likely that 'ten days,' perhaps as a third of the month, had something to do with his title. The signs can however be read *ràb-u-te*. The form *amêl ràb* (*plu*) occurs often in the letters, but whether as a singular term is doubtful. It certainly includes the *bêl pâḫâti*, *ràb karmâni* &c. in K 122, l. 11, *H. A. B. L.* p. 40; the *amêl ràb* (*plu*) of the *bît kâri* are named on K 1050, R 1, *H. A. B. L.* p. 62; cf. K 609, 6, *H. A. B. L.* p. 118, and K 619, R 11, 14, *H. A. B. L.* p. 170. On II. R. 44, 2, 3, c. d: we have *BAB-BAB* read *ra-bu-(u)*. Hence perhaps the *amêl BAB-BAB-MEŠ* of K 4395, II. 15, is to be taken as equivalent to *amêl ràb-(plu)*, and both read *amêl rabûte*. I think it very unlikely that the *amêl ràb X-te* is really to be read *ràb ešrîte*, or has anything to do with the tithe. Delitzsch, *H. W. B.* p. 149 b, reads *ràb-X-te* as *decurio*. Still, even so, the 'decurio of the scribes' of Arbela seems a doubtful kind of title. It is conceivable that the *bêl paḫâti* and *ràb karmâni* who are called *ràb-X-te*, in K 122, may have owed tithe to the temple. Still the doubt remains, on account of the astrological tablets mentioned above.

So far I have been unable to discover any reference to the *ešrû* in the Assyrian historical inscriptions. That of course proves nothing at all. It is improbable that a custom, so thoroughly established in Babylonia, was unknown in Assyria. We have traced the 'bow' back from Persian times to the Sargonid dynasty. Some overlooked passage will doubtless soon shew the *ešrû* to have been in full force in Assyria also. It is noteworthy that in Morocco, a country that has preserved many ancient Semitic usages and terms, 'the lands are divided into جيش, (pronounced *gaish*), which pay both عشر (*aasher*) and خراج (*kharâj*) in men, and *na'ib* (نايب) which pay only the tithe, or *aasher*': see Talcott Williams, *B. A. S.* III. p. 582. Is it possible that the *gaish* has anything to do with *ḳaštu*? The land called *ḳaštu*, as we have seen, paid both tithe and men in Persian times.

Precedence.

237. As the order of precedence of the officials is not only of interest in a general way, but also of importance for fixing the dates of the post canon Eponyms, it may be as well to collect here what remarks I have now to make on the point. We have many indications of rank in our documents and in the letters. It would be too much to say that we have yet the means of placing each official in his proper position relative to all the rest, but we can draw up a very comprehensive list arranged approximately in order of precedence.

First I must produce the evidence and then set out my attempt at a scheme. On K 956, a letter enumerating quantities of money, clothes and food, assigned to various officials, we get this order, *mâr šarri, sukal êkalli, turtanu, sartennu, sukallu šanû, ràb šâḳi, amêl ša pâni êkalli, amêl ša eli bîtâni, aba mâti, mukilli apâti*, etc. Also we find that the portion, assigned to 'the palace' itself, precedes that assigned to the *ŠAL êkalli*. The palace in this and similar places is a synonym for the king's household. These officials do not all seem to be domestic. Even if the *ràb šâḳi* be the chief of the wine and drink department, 'a High Cellarer,' the Tartan and the Sartênu are surely 'court' officials. On K 1382 we have another list, which starting somewhat lower gives *sartênu, sukallu šanû, ràb-šâki, tukultu*. The mention of three officials, out of four, in the same order speaks strongly in favour of a real order of precedence. Lower down we have this sequence, *ràb kiṣir, âsû, mutîr pûti, mukîl apâti*. On K 4672, a sequence is *ràb kiṣir, rakbu, šaknu, ša pâni* (*êkalli* ?), *ràb ḫanšâ, šalšu*. On 79–7–9, 32 a sequence gives *ša pâni êkalli, ràb SE-GAR, tukultu, ràb karmâni*. On no. 230, the order runs *šalšu, ràb kiṣir, ḳêpu, šalšu, mâr šipri, aba*. On no. 244, we find this sequence, '*ardu ša sukalli, ràb nappaḫ ḫurâṣi, šalšu, ardu ša turtâni, NI-ŠUR*, a private servant, a weaver, a scribe, *ḳêpu êkalli, aba ṣâbit*.' In a large number of cases, like no. 495, the order of official litigants is '*šaknu, bêl paḫâti, ḫazânu*;' also in no. 641, the *šaknu* is above the *ràb ḫanšâ*. As is well known the sequence of Eponyms gives 'king, Tartan, *nâgir êkalli, ràb BI-LUL, tukultu, amêl ša mâti*;' then came the *šaknu* of the various cities. On K 10451 we have the order, 'king, *sukallu, turtânu, turtânu šumêli*, and after two vacant spaces, the *tukultu*. On 82–5–22, 139, after

some *bêl paḥâti*, we read *šalšu dannu, mukîl apâti, ràb kiṣir, šalšu, ràb ḳêpê.*

238. A preliminary and tentative list may be given here to indicate the sort of thing that is required. I am not concerned to defend its accuracy, nor to support its identifications, but merely to provoke discussion and invite a settlement.

I. The Royal Family.

The King,	*šarru* (*êkallu, mâti*).
The Queen,	*aššat êkalli.*
The Queen Dowager,	*ummi šarri.*
The Crown Prince,	*mâr šarri* (*apil šarri*) *rabû.*
The Prince of Babylon,	*mâr šarri Bâbili.*
A Prince Royal,	*mâr šarri.*
A Princess,	*mârât šarri.*

II. The Royal Household and Chief Officers of State.

The Grand Chamberlain,	*sukallu rabû.*
The Commander in Chief,	*tartânu.*
The Tartan of the Right,	*tartan imni, tartânu rabû.*
The Tartan of the Left,	*tartan šumêli, tartânu šanû.*
The Director of the Palace,	*nâgiru êkalli.*
The Chief Cupbearer,	*ràb BI-LUL.*
The Chief Justice,	*sartênu.*
The Chief Cellarer,	*ràb šâḳê.*
The Deputy Chamberlain,	*sukallu šanû.*
The Field Marshal,	*ràb šâḳê, ràb ša rêšê.*
The Warden of the Palace,	*ša pâni êkalli.*
The Superintendent of the Houses,	*ša eli bîtâni.*
The Chief Baker,	*ràb nuḥatimmê, ràb MU.*
The Chief of the Cooks,	*ràb nâdin aklê, SE GAR.*
The Chief Steward,	*tukultu rabû*: or *abarakku.*
The Chief Architect,	*ràb karmâni.*
The Chief Scribe,	*ràb aba.*
The Palace Notary,	*aba mâti, aba êkalli.*
The Lieutenant Governor of a Province,	*šaknu.*
The Administrator of a Province,	*bêl paḥâti.*
The Grand Charioteer,	*mukîl apâti dannu.*
The Grand Orderly,	*šalšu dannu.*
The Chief of the Stud,	*ràb urâte.*
The Mayor of a City,	*ḥazânu.*

The Warden of a District,	*ḳêpu.*
The Warder of a Fortress,	*ràb ḫalṣu, ràb birte*
The Warder of a Garrison,	*bêl maṣarti.*
The Chief of Brigade, Colonel,	*ràb kiṣir.*
The Warder in Chief,	*ràb ḳêpê, ràb ḳêpâni.*
The Body Guard,	*mutîr pûti.*
The Company Commander (centurion).	*ràb* 50.
The Master of a Chariot,	*bêl narkabti.*
The Charioteer (driver),	*mukîl apâti.*
The Orderly,	*šalšu.*
The horseman, rider,	*rakbu.*
The messenger,	*mâr šipri, apil šipri.*
The scribe,	*aba.*

The many trades and occupations can scarcely be given a definite rank. Some, as the priest and the astrologer, the magician and the physician, take high rank; but individual merit or royal caprice doubtless had much to do with this dignity.

239. There are many other officials whose titles occur in Harper's Assyrian and Babylonian Letters. I have made lists of them for my own information but naturally abstain from any comment on them here. They will doubtless receive the fullest elucidation which Assyriological science can give when Dr R. F. Harper has completed his publication of texts. I have no wish to poach on another man's preserves, but when I am puzzled with some apparently fossil bones on my side of the hedge, I trust I may be pardoned for saying that I am delighted to see the living creature in full health and vigour on the other side. It must not be wondered at that I have made so little use of the letters. I tremble greatly, as it is, concerning the use I have made of letters not already published. They will doubtless 'serve no useful purpose,' but perhaps I shall be forgiven on the ground that they have not appeared in an Assyriological publication.

The use which I propose to make of the rank and order of precedence among Assyrian officials in determining the date of the various post canon Eponyms cannot be enlarged upon here. The chapter on Chronology will return to the point. This chapter has already exceeded its proper limits, and some additions to it which are suggested by fresh texts and articles written since this was sent to press may be looked for in the Appendix.

CHAPTER III.

METROLOGY.

240. The system of weights and measures, adopted by the Assyrians, must clearly be a very important subject for consideration in an introduction to the study of their commercial documents. Undoubtedly, this system was inherited from Babylonia, and still shews strong affinities with the older Babylonian system. At the same time there had been many marked changes, and we cannot merely investigate the older customs. The later Babylonian system also presents many close parallels. Still, a result, obtained from either early or late Babylonian sources, by no means necessarily holds for Assyria. It will, however, often suggest what we may expect to be true there, and only awaits confirmation. The greater variety and far greater number of the Babylonian documents make it easier to start from them and obtain results, to be afterwards modified, if need be, for Assyria.

The inscriptional material for this subject is already very large, and the discussions, already put forth, form a voluminous and very distracting class of literature. Professor Dr J. Oppert led the way, and in the list of his works, given by Muss-Arnolt in *B. A. S.* II. 529—556, no less than 26 articles and studies by Oppert expressly refer to Metrology. Dr C. F. Lehmann has also devoted a large amount of labour to this subject, and specially to the comparative side of it. More recently Mr G. Reisner and M. F. Thureau-Dangin have contributed noteworthy facts and deductions. Others, such as Messrs G. Smith, A. Aurès, Professor Lepsius, Professor Delitzsch, Brandis, Hultsch, Hincks, Lenormant, have made noteworthy contributions to the subject.

If I might be allowed to make a reservation concerning such learned work, often covering almost the whole field of ancient

metrology, it would be that mere coincidences are often essentially delusive. In different countries, the same name may indicate very different things; and even when a measure has been, with great probability, evaluated for one country, the occurrence of another measure of the same size elsewhere is no sure mark of borrowing, still less of regular commercial intercourse. Even the adoption of the same scale of gradation is apt to be delusive, the more so, the more nearly that scale approximates to the natural scale, founded on the dimensions of the human body. In such cases, the systems may have arisen independently.

The earlier attempts to fix the weights and measures of the Assyrians and Babylonians were also marred by a desire to credit the ancients with a too complete knowledge of our modern metric system. It has been suggested, for example, that they were acquainted with the properties of the 'seconds pendulum' as a control of their measures of length. Such an assumption was very fruitful of results which lack confirmation, and while it gave an air of systematic completeness to an investigation, it cannot make for progress. Few can be aware, without careful and prolonged study, how many assumptions are concealed beneath these specious results. It is very pleasing to imagine that ancient philosophers had worked out a scientific and connected system of metrology, which, in all essential points, was the forerunner of our own. I only hope the conjecture may prove to be well founded. At the same time, it seems safer to be content with registering ascertained facts and setting out proved deductions, along with their proofs. Passing reference only will be made to the discussions of others for their views as to the inter-relations of the systems.

Undoubtedly the system adopted finally by these ancient peoples influenced the neighbouring nations, and it is intensely interesting to trace the migrations of these weights and measures to other lands. It is nothing short of marvellous that so many close parallels can be found in the usages of other nations of antiquity. Further, a comparative view may often suggest relations between the various units, and may set us on the track of discovery. The relations between the weights of Babylonia and of Egypt open up a wide subject, where many grave differences of opinion would have to be considered. The relations between the systems of Babylonia and Phoenicia, or of Asia Minor and the early European civilisations, must then find a place. At the same time, the actual system of Assyria is difficult to

coordinate with that in use in Babylon and will be quite enough for me to deal with. Especially do I owe obligations to Dr Lehmann's discussions for much light on my small province of the wide empire of metrology, but I am not able to do justice to them here. Comparative metrology must be neglected in order to confine this chapter within moderate limits. Such discussions are outside the purpose of this volume and can only be referred to in a very superficial manner. No disrespect or disapproval is intended by such seeming neglect.

Numeration and Notation.

241. Before we can conduct any enquiry concerning the weights and measures of a people, we must know how they counted. The Assyrians and Babylonians spoke the same language, and therefore had the same names for their numbers. Hence any such name, found on the monuments of either nation, is safely assumed to be in use by both. They also counted the same way, but used slightly different notations. These notations will be treated together, as the differences are helpful in the explanation of both systems. These differences are rather graphic than fundamental, they are ways of writing rather than the expression of different ideas.

The system of notation adopted by the Assyrians and Babylonians was at once full and simple. It was capable of being used to denote very high numbers, though it is a question whether the conception of a 'million' definitely existed. It has been usual to refer to the system as 'sexagesimal.' In that case, the 'radix' of the scale of notation would be 'sixty,' and there certainly were separate signs for the first two powers of 'sixty.' The *soss* or 'sixty' and the *saros* or 'sixty times sixty,' were always denoted by separate signs, and indicated by 'unity' in composite numbers. Some very interesting, and also very clear, examples of the use of 'sexagesimal' notation will be found in the tables of squares and cubes published IV. R. 40, nos. 1 and 2, and IV. R^2. 37. Thus the cube of 4, or 64, is expressed by 1, 4, i.e. $60 + 4$; the cube of 5, or 125, is expressed by 2, 5, i.e. $2 \times 60 + 5$; the cube of 16, or 4096, is written 1, 18, 16, or $60^2 + 18 \times 60 + 16$; the cube of 17, or 4913, is written 1, 21, 53, or $60^2 + 21 \times 60 + 53$; and similarly 31^3, 29791, is written 8, 16, 3, that is to say $8 \times 60^2 + 16 \times 60 + 3$.

Alongside this 'sexagesimal' notation, there existed also a 'decimal' system, with separate signs for 'ten,' 'hundred,' and

'thousand.' Thus in the above examples, 16 is expressed as 10 + 6, but 125 is expressed 'sexagesimally' by 2 + 5, or 2, 5. The same number may be 'decimally' expressed as 1, 2, 5, i.e. 1 × 100 + 2 × 10 + 5. Both systems were in use together, later, if not always. A link between the systems was a separate sign for 600, the *nêr*, which occurs very early; and later, other links came into use.

In the early Babylonian systems of notation, separate notations were used for the enumeration of measures of area and capacity, and also for weights. The units in these systems being the *GUR* and the *GUN*, we may say that a different notation was used in counting *GUR* and *GUN*, from that used in counting people, sheep, &c. For an account of this system, see specially Reisner *S. B. B. A.* 1896, p. 417 f. and *Z. A.* XI. p. 422. We may also regard these signs as indicating fractions, and we shall return to the point in §§ 267 and 268. Here we shall regard them as integers, but the reservation must be made that they may be differently regarded.

242. There does not seem to have been any separate sign for, or conception of, 'unity.' The numbers are prefixed to the name of the object, which is followed by the plural signs *MEŠ*, *ME*, *ZUN*, with or without a plural termination. In the case of measures, the name of the measure is not put in the plural, but is sometimes followed by *TA-A-AN*, *TA*, &c., apparently indicating 'multiplicity.' The use of *kam* after numbers has been already noted, § 68. The name of the measure implied is often omitted. A step in the direction of realising the conception of a 'unit' was, however, taken by the use of the expression *ina ištên*, before the name of the measure. Thus 'fifty cubits' would be expressed, 50 *ina ištên ammat*, as well as 50 *ammâte*. The literal rendering of the former expression is '50 (measured) at (the rate of) one cubit,' that is, '50 *cubit-units*.' Further illustrations of this use will be found in § 254.

243. The numerals, from one up to nine inclusive, may be indicated by as many vertical wedges: but the arrangement and disposition of these wedges deserve remark.

Thus 'one,' *ištên*, is usually written with the single vertical. Before common objects this is frequently accompanied by the phonetic complement *-en*, thus 1-*en alpu*, read *ištên alpu*, means 'one ox.' A commonly occurring form is 1-*it*, or *ištênit*, the feminine of *ištên*. This single vertical wedge may, of course, denote the higher numbers 60 or 3600, in the 'sexagesimal notation,' but only so, when followed by numbers representing other units. Thus, in

this notation, the single vertical could not mean 'sixty' at the end of a series of figures, the separate sign for 'sixty' would then be used. In the enumeration of areas by the *GAN*, according to Reisner, unity is denoted by the sign *u*, ordinarily meaning 10. In the enumeration of contents, or areas, by the *GUR*, the single horizontal wedge is used to denote 1. In the later Babylonian times, the horizontal sign is used to mark 1 for all sorts of objects. At the same time, often in the same text, the single vertical is used, and the sign read *ištên*, clearly made up of 1-*en*, had the vertical and not the horizontal for its first member. Before *GAN*, in early times, according to Reisner, this single horizontal denotes, not 'one,' but the fraction $\frac{1}{18}$th. In many Assyrian texts, the single vertical is so written as to be almost indistinguishable from a single horizontal.

The number 'two,' *šinâ*, is usually written with two single verticals, but in later Babylonian times with two single horizontals, sometimes arranged like the sign *tap*, Brünnow's no. 3758, sometimes one after the other, like the sign *ḫal*, Brünnow's no. 74. A pair of short verticals, one over the other, like the last part of the sign *a*, occurs in the fractional parts of the *gur*. Two short verticals, side by side, are often added to the sign *ŠÚ*, denoting *ḳâtu*, 'a hand,' &c. to denote the duals *ḳâtâ*, &c. The two long verticals are less common, but usually occur after *nîr*, to denote *šêpâ*, 'the two feet.' This mark of notation is sometimes spoken of as the 'dual sign.'

The number 'three,' *šalâšu*, *šelâšu*, fem. *šalaltu*, *šalaštu*, is usually written with three single verticals, but in the later Babylonian times three horizontals occur. These are sometimes written one over the other, also two together, like *tap*, followed by one horizontal on the upper right-hand level.

The number 'four,' *arba'u*, *erba'u*, fem. *irbitti*, is rarely written with four long verticals; usually with four short verticals, arranged three in the upper row, over a stouter one, centrally below them, like the sign *GAR*, Brünnow's no. 11943; sometimes like the sign *za*, Brünnow's no. 11720, with two above and two below; very often, like the sign *tap-tap*, Brünnow's no. 3782, with four horizontals, in two pairs. In the later Babylonian documents we often have three horizontals, one above another, followed by another to the upper right-hand corner.

The number 'five,' *ḫamšu*, fem. *ḫamiltu*, is commonly written with five short verticals, three in one upper row and two beneath. These are often replaced, in Babylonian, by five horizontals, three in

the first set one over another, and two to the upper right hand. In our documents it generally looks like *YÁ*, Brünnow's no. 12190.

The number 'six,' whose Assyrian name is not yet quite certain, perhaps *siššit* in the feminine, is written with two rows of short verticals, three in each row. In the later Babylonian form we may also have three horizontals, one above another, followed by three more. In some texts this can hardly be distinguished from the former, which is like Brünnow's no. 12196.

The number 'seven,' *siba*, *sibi*, fem. *sibitti*, is usually written with seven short verticals, in two rows of three, one above the other, with a seventh centrally below them. In the later Babylonian texts we also find two sets of three horizontals, one above another, followed by one horizontal to the upper right hand. In our documents it usually has the form of Brünnow's no. 12200.

The number 'eight,' *samânu*, is written with eight short verticals, usually arranged in two rows, of four each, one over the other. In this case the scribe often appears to have written 'six' first, in two rows of three each, and then added two more verticals, one over the other, but on different levels from the first rows. Another common form consists of two rows of three each, with a third row of two, centrally beneath them: this form is like Brünnow's no. 12214.

244. The number 'nine,' read *têšu*, fem. *têšit*, is sometimes written with nine short verticals, arranged in three rows, of three each, one row above another. The form with nine horizontals occurs in Babylonian texts, and it is not certainly absent from our texts, being easily mistaken for the former, which is very like Brünnow's no. 12216. A frequently occurring form consists of three short stout verticals, vertically one above another; this form also occurs as three slant wedges, arranged like the sign of repetition, Brünnow's no. 7335. This abnormal form seems to be derived from the common way of writing 'nine' as 'ten less one.' This was written 10-*LAL*-1, with the sign for 'ten,' followed by *LAL*, and then by 1. The sign *LAL* was the ideogram for *šaḳâlu*, 'to weigh,' and its derivatives. It is said to be derived from a picture of the 'tongue' or 'pointer' of a balance, but seems to me to represent the upright pillar, with a projecting nail or hook at its upper end, from which the beam of the balance was suspended. The sign *LAL* also was the ideogram for *maṭû*, 'to be deficient,' 'run short,' and its derivatives. It also is written *LAL-DI*, which I take to be *LAL-ṭi*, *i.e. imaṭ-ṭi*. The connection between the ideas seems to have

followed from the process of 'differential weighing.' The weight 'nine' would be found by placing the 'ten-weight' in the weight-pan and a unit weight along with the object to be weighed in the other pan. This was graphically represented by putting ten on one side of *LAL* and one the other; and very clearly expressed 'nine.' This use of *LAL* extended beyond the expression of 'nine.' On no. 88, at the right-hand lower corner, we find 10-*LAL*-2, clearly intended for 10 *minus* 2, that is 'eight.' It is quite common to find nineteen expressed as 20 minus 1. This, however, is puzzlingly written, 21-*LAL*, meant of course for 20-*LAL*-1. This use, and its real meaning, were first pointed out by Professor Jensen, Kosm. p. 106, *note* 2. This use of *LAL* is common in Strassmaier's texts, see specially Nbk 388, where the '18th day' is followed by *ûmu* 21 *LAL*, and then the 20th and 21st succeed. Other cases of the use of *LAL*, in the sense of 'minus,' occurring in our documents are; ½ *manê LAL ana* 1 *biltu kaspi*, in no. 428, to be taken as 'one talent of silver all but one half mina'; and *BAR-LAL ana* 2 *imêr eḳli*, in no. 414, which means, 'two homers of land all but 6 *ḳa*.' Compare Oppert, *Z. A. X.* p. 49 f.

A great similarity of method existed therefore between the Assyrian notation and the Roman system. It is quite another question whether there was any real borrowing on the latter side. It has been usual, and is convenient, to use the Roman notation rather than Arabic numerals in transliterating cuneiform numbers.

245. The sign for 'ten,' *ešru*, fem. *eširtu*, is the single slant wedge, or 'crotchet,' usually read *u*, Brünnow's no. 8029, originally a circle, as the verticals were half circles with a vertical diameter. Here then as in the Arabic and Roman notations we meet with a fresh sign. Men naturally count up to ten, and then start afresh. The numbers between ten and twenty are formed by adding to the sign for ten the signs for the necessary units. Only nineteen presents the abnormal form noted above, § 244, and is more often written normally, with *u*, or ten, followed by the nine short verticals. Actual examples of the names for 'eleven,' *ištenešrit*, and 'fifteen,' *ḫamîšerit*, suggest that the 'teens' were formed by adding *-ešerit*, to the 'unit' names.

Precisely the same scheme of notation is followed up to one hundred. The arrangement of the 'crotchets,' or *u*-signs, indicating the 'tens,' varies somewhat. Thus 'twenty,' *ešrâ*, is written with two 'crotchets' on the same line, like the sign *man*, Brünnow's

no. 9941. 'Thirty,' *šalašâ*, *šelašâ*, is written with three 'crotchets' on the same line, like the sign *eš*, Brünnow's no. 9968. 'Forty,' *irba'â*, is written with four 'crotchets,' usually three in the upper row, and one below to the left hand, like Brünnow's no. 10013; but also sometimes with two 'crotchets' in each row, one row above the other, and is then like the Babylonian form of *še*. Another form of this sign for 40 is hardly to be distinguished from the Babylonian sign *ḫi*: see IV. R². p. 37 *passim*. 'Fifty,' *ḫanšâ*, is written with five 'crotchets,' three in the upper row and two below, like Brünnow's no. 10031.

A separate sign existed for 'sixty,' read *šuššu*, the Greek σῶσσος, which in the 'sexagesimal notation' is indicated by 'one,' i.e. a single vertical; while the units are denoted by horizontals. This distinct notation had been greatly modified at any rate in Assyrian times. This separate sign is often to all appearance *UŠ*, Brünnow's no. 5025; but also quite as often apparently *KU*, Brünnow's no. 10504. The connection between the signs, if any, is not clear to me; but in the cases that I have collated, *KU* appears rather to be 1-*ŠÚ*. If this be really the case, perhaps *ŠÚ* is an abbreviation of *ŠÛŠU*. In our texts 'sixty' by itself is written with six crotchets, as in nos. 151, 5; 410, R 1; 420, 1, 7; 671, 2, and in no other way; but *UŠ* is used in Sargon's Bull Inscriptions, and *KU* is frequent in Strassmaier's texts. For the form with six crotchets compare Brünnow's no. 10045. In composition 'sixty' is usually denoted by 1, followed by the numbers below sixty. The single vertical, for sixty, in composition with other numbers, occurs frequently in our documents, as in Strassmaier's texts, and is then written exactly like the sign used for 'one.' In the early Babylonian texts this vertical indicating the *soss*, is made quite differently from the single vertical indicating unity: see Reisner, *Z. A.* XI. p. 420. In the old Babylonian texts, Meissner *A. P. R.* p. 94, *note* 2, *KU* is often written for *ŠU*, and according to Haupt, *S. F. S.* 16 ff, was also pronounced as *ŠU*.

The numbers above sixty could be written with more than six 'crotchets,' but the usual way is to write a single vertical for 'sixty' and add the needful 'crotchets' to denote the additional 'tens.' Thus 70 is written 1-*u*; 80, 1-*u-u*; 90, 1-*u-u-u*. These methods are common at all periods; for the other forms see Brünnow's nos. 10048, 10051, 10054. Thus alongside the 'sexagesimal notation,' there was a fully developed 'decimal notation.'

246. There was a separate sign for 'hundred,' the same as *ME*, Brünnow's no. 10354. The name for 'hundred' was probably *mê*. It may be worth noting that this sign is often the sign of plurality, taking the place of the more usual *MEŠ*. Numbers above a hundred are made up from the other signs below in one of two ways, using either the sexagesimal or decimal notation. Thus 121 could be written 2, 1, i.e. $2 \times 60 + 1$; or, 1 *ME* + 2-*u* + 1, i.e. 100 + 20 + 1. The hundred could never be denoted by 1, the *ME* is always expressed.

The separate sign for 'six hundred,' *nêru*, the Greek νῆρος, is Brünnow's no. 10146. It is clearly made up of 1 for 'sixty,' and *u* for 'ten,' i.e. '60 times ten.' To avoid confusion with 1-*u*, read 60 + 10, i.e. 70, the crotchet is placed at the upper right hand of the single vertical. In the original form, for the same reason, the separate signs for 'sixty' and 'ten' are made to overlap; if separated they would read 70. In our documents *nêr* does not occur, the six hundred being written 6-*ME*, which is also the usual form in Strassmaier's texts.

The sign for 'thousand,' read *lim*, is Brünnow's no. 9263. It is clearly made up of 'ten' and 'hundred.'

The separate sign for three thousand six hundred, read *šâru*, the Greek σάρος, is Brünnow's no. 8979. This is really the old Babylonian form of the character *ḪI*, which is also read *šar*. The older form seems to have been specially preserved for the numeral. Examples of *ḪI*, in this sense, do not occur in our documents, which contain numbers up to 'ten thousand.'

A table will be given, at the end of this work, containing all the forms of the numbers actually occurring in our texts and some noteworthy forms from other sources. An excellent table of the Assyrian numerals will be found in King's *First Steps*, p. 133. The numbers themselves are discussed in Delitzsch, *Assyrian Grammar*, p. 205 f: Hilprecht's *Assyriaca*, p. 67 f. The early forms are given by Thureau-Dangin, *L'écriture cunéiforme*, p. 83 f: compare also Reisner, *Z. A.* XI. p. 417.

It will be noted that, as a rule, the signs employed to denote numbers have no connection whatever with the names of the numbers. The few cases, like *šú* (?) and *ME*, are probably of late introduction.

Fractional numbers.

247. The fractions are denoted by signs which seem to have no connection with the numbers forming their numerators and denominators. Mr Thureau-Dangin, *B. A. S.* III. p. 588 f, has shewn, by pointing out the early forms, that they are directly derived from pictures of a pot, half full, or otherwise divided. As a fact, these signs represented originally definite quantities, or measures, which from their relation to the unit measure became conventional symbols for fractions of it, and then passed over into signs of those fractions, independently of the particular unit. This is much easier to believe, than that they represent so many sixtieths, according to the elaborate theories of Dr Peiser and others. As it is impossible to reproduce here the figures of the early forms, I must refer to Mr Thureau-Dangin's *L'écriture cunéiforme*, p. 81 f.

'One-third,' *šuššanu*, is expressed by the sign, Brünnow, no. 11221. 'Two-thirds,' *šînipu*, is expressed by Brünnow's no. 11224. 'One-half,' *mišlu*, is expressed by the sign *maš*, Brünnow's no. 1722. Also the fraction 'five-sixths,' *parâḫ*, had a separate sign, Brünnow's no. 11227. Compare also *ḳâtâ* in § 254, which means 'a third.'

The divisions of the *GAN*, a surface measure, also had separate signs, according to Mr Thureau-Dangin, *B. A. S.* III. p. 588, for $\frac{1}{72}$, $\frac{1}{36}$, $\frac{1}{18}$, and $\frac{1}{3}$. The same signs are read differently by Oppert, *R. A.* III. p. 97 f, and *C. R.* Aug. 1896, who gives them the values $\frac{1}{4}$, $\frac{1}{2}$, 1, and 6. These, however, are rather signs of areas than properly signs of fractions.

So too, the divisions of the *GUR*, an early measure of capacity, may be regarded on one side as signs for the fractions $\frac{1}{30}$, $\frac{2}{30}$, $\frac{3}{30}$, $\frac{4}{30}$, $\frac{5}{30}$, or on the other side as merely signs for the definite measures of 10, 20, 30, 40, and 50, *ḲA*, the *GUR* being a measure of 300 *ḲA*. It is even possible that these so-called 'fractions' had separate names as measures. We shall return to this question in § 287.

The older Babylonian documents exhibit a real fractional notation. Thus the signs written *ŠI-X-GAL*, where *X* is a number, mean an Xth part. This however means an Xth part of a sum, and was not used to denote a fractional number after integers. That would either be expressed in terms of a measure of a lower denomination, or omitted altogether. The variant form *ŠI-X-GAL-BI* means 'its Xth part.' See, on this notation, Reisner, *Z. A.* XI. p. 422.

We frequently meet with fractions in the statements of the rate of interest. Thus 'one-third' of the sum advanced, 'its third,' is indicated by *III-su-šu*. Here the *šu*, also written *šú*, is undoubtedly the pronominal suffix, and means 'its.' How we are to read the *III-su* is not quite clear. Certainly some form of *šalašu* must be used, but is *su* really phonetic or only indicative of the fractional purpose of the III.? Professor Jensen suggested to me a form *šulsu*; and perhaps there was a form *šussu*, alongside the *šuššanu*, given above. An argument for the phonetic worth of *su* is to be found in the variant *III-si*. Beside these forms we find *su* alone, or *III-su*, used to denote 'a third.' In these cases we might suppose the *su* really a modified *šu* due to the influence of the *t* in some feminine form, perhaps *šalšâtsu*, for *šalšâtšu*. The addition of another *šu*, as in the interests, renders this unlikely. We may have to do with more than one alternative. The *su* may really be the name, or ideogram for the name, of one-third of a shekel: just as in later times the *ḳâtu* seems to have been the name of a third of a shekel.

The 'fourth part,' *rebâtu*, is usually written *IV-ut-ti*, also *IV-ut* and *IV-ti*. These forms are usually followed by *šu* or *su*. In the latter case *su* is the modified form of *šu*, we read *rebûtsu* alongside *rebûtišu*. It is noteworthy that we must read this fraction *rebûtu*. In Strassmaier's texts we usually have *re-bat*, which can also be read *re-bit*. In our no. 780, 'one-quarter' is written *IV-tu*, and apparently 'three-quarters' is denoted by *IV-tu ina libbi III*, or 'a quarter of three.' Perhaps we are really to read this fractional form as *rubûtu*.

An 'eighth part,' is expressed, in no. 6, by *VIII-su-šu*; and, in no. 780, by *VIII-šu*. As the *su* here also does not represent *šu*, it really seems that fractional parts were indicated by the addition of *su* to the numeral. In this case it can hardly be phonetic, one can scarcely suppose *sumunsu* was intended.

Ordinal numbers.

248. The ordinals, see Delitzsch, *Assyrian Grammar*, p. 207, do not occur often in our documents, except in dates, as the 'first,' 'second,' &c., day of the month. For the graphic method of converting cardinals into ordinals, by the addition of *kam*, see § 68. Ordinals also occur as titles, as *šanû*, 'the second,' then 'deputy,' and *šalšu*, 'the third man,' then a mere title, like the Hebrew שָׁלִישׁ.

The numerical significance is usually not prominent in these titles: see §§ 155, 210. A rather indefinite numerical use is made of these ordinals in such phrases as *alpu šanû*, which would literally be 'a second ox,' but certainly means a 'two-year old ox.' It is possible that *II-u* in this sense was not read *šanû*.

Numeral adverbs and adjectives.

Numbers indicating 'multiples,' 'so many times,' and the like are rare. The frequent phrase *ana ešrâte*, appears to mean 'tenfold.' The word *ešrâte* is written *X-MEŠ*, *X-MEŠ-te*, *X-MEŠ-a-te*, *X-a-te*, *X-A-TA-AN*, *X-A-A*, *X-TA-A-A*, *X-TA-AN*. These variants seem to indicate that *A-TA-A-AN*, *A-A*, *TA-A-A*, and *TA-A-AN*, are all to be regarded as graphic devices for expressing *âte*, and are to be so read. The term 'twelvefold,' written *XII-A-TA-AN*, occurs once, in no. 474, but is frequent in Strassmaier's texts, e.g. Nbd 116, 38; 178, 40; &c. The sign *TA* alone is also common after numbers in the later Babylonian documents, as is also *A-AN*. They are usually regarded as mere determinatives of number, shewing that what precedes is to be taken numerically, but it seems to me that they indicate rather multiples of the unit. Thus 5 *TA šiḳlu* practically denotes the same thing as 5 *šiklê*, but is properly 'five times a shekel,' the other being 'five shekels.' We may render by 'a fivefold shekel.'

The significance of the plural sign after 'ten' has to be taken into account. We know that after measures of length, *MEŠ* indicates that the measure is 'squared.' Thus 1 *GI-MEŠ*, is not *one GI*, but 1 *square GI*. Hence '*ten-MEŠ*' cannot mean simply 'ten.' I take it to mean repetition to the extent of 'tenfold': the sum referred to is to be taken 'ten times.' Hence I cannot admit Dr Peiser's view, *K. B.* IV. p. 123 and *passim*, that *ana ešrâte* should mean 'to ten out of sixty,' i.e. 'one-sixth.' When mere interest could be 300 *per cent.* a deterrent penalty was not likely to be set as low as $16\frac{2}{3}$ *per cent.* Nor is it possible that *ana ešrâte* could mean 'with the addition of a tenth.' Ten *per cent.* is highly improbable, and the word for tenth is *ešrû*, *ešrîtu*. Hence we cannot think of a penalty paid to the 'tithe.'

Numeral adverbs ending in *iš*, like *išteniš*, 'once,' 'all at once,' 'all together,' rarely occur in our documents. For examples see Del. *A. G.* p. 210.

Such terms as 'entirely' and 'to its full value,' 'in its entirety,' are expressed by *ana gamirtišu.*

The form for 'whole,' *mitḫâru*, occurs in our texts, in the phrase *ana mitḫar*, evidently equivalent to *mitḫariš*, 'entirely,' 'in its entirety.' It is tempting to suppose, however, that the sign *BAD*, here read *mit*, either has the value *gam*, or is the ideogram of *gamâru.* The meaning would be the same.

For words that are to be classed as numeral adjectives, distinct from those already given, see *D. A. G.* p. 209 f.

Also for the words denoting temporal repetition, 'for the second or third time,' see *D. A. G.* p. 209.

I have purposely dwelt rather fully on the numbers and their notation, because to various misunderstandings of them is due much of the obscurity which has been imported into the subject of metrology. The subject is difficult enough, without any added complications. I propose, in dealing with the measures, to set out first the scale of gradation, with the native names of the various units or divisions, or, at any rate, the signs by which they were indicated, and so, if possible, settle their interrelation. Then, where data exist, I shall give a provisional determination of their absolute values. Only very rarely will any reference be made to the other systems of ancient metrology. Reference may be made, for a comparative view, specially to Brandis, Hultsch, and Lehmann. It must, however, be remembered that they relied largely on Professor Oppert's results, which have been continually revised and altered by him, as fresh facts came to light, and few of which he would still maintain.

The measures of length.

249. In modern systems of scientific metrology all measures are based upon those of length. The recognition of area as square measure is a corollary from the geometrical ideas expounded in Euclid's Second Book of Elements, and the consequent perception of volume as cubic measure depends upon the ideas brought out in the Eleventh Book of Euclid. It is not necessary to suppose, however, that these geometrical conceptions preceded the measurements of area and of capacity. Indeed unless very strong evidence to the contrary can be produced, it seems safer to suppose that some well-known surface was taken as the unit of area. So, while it

is very unlikely that a circular area was ever adopted as a unit, it is by no means to be assumed that a 'square' area was always chosen. So, too, while the unit of weight may have been recognised, in time, as the weight of a standard volume of water, wine, or grain, it is more likely that each class of goods was originally weighed by a unit of its own kind. The gradual systematic readjustment of various weights to form a connected and universal system may have led to the use of weights of fixed linear dimensions, but it does not do to assume that the weight of a cube of any unit of length was consciously taken as a unit weight. Indeed, as will be soon clear, the names of the measures suggest the selection of familiar quantities as measures, and a gradual fixation of those measures by standards. The interrelation of these standards may have been merely approximate for some time, and, when the readjustment of them, to suit a theoretical scale of gradation, took place, the measures may have suffered considerable change. Hence, while it is quite worth while to trace out the migrations of the standards from one nation to another, and to discover their interrelations as far as inscriptional evidence or the direct testimony of the ancients permits, I thoroughly distrust any argument based on these theoretic considerations. When a volume has been found to be *le cube du tiers de l'empan*, or when we read, *Wie bei uns das Zehntel des Meters die Kante des Würfels bildet, der ein Liter fasst und der mit destillirtem Wasser gefüllt und bei einer Temperatur von* 4° *Celsius gewogen, das kilogram ergiebt, so ist das Zehntel der gemeinen babylonische Doppelelle die Basis des Hohlmaasses, dessen Wassergewicht die schwere Mine gemeiner Norm ergiebt!* we know we are in the realms of pseudo-scientific romance, and can almost hear the seconds pendulum ticking in the observatory of the Babylonian astronomer. Allowance is to be made, however, for the fact that Continental metrologists are compelled to think in that highly artificial metric system, which by its very simplifications obscures the concrete realities beneath their abstract titles.

250. By common consent, the dimensions of the human figure furnished the original basis of measures of length, a more practical and no less scientific basis than the imaginary circumference of a great circle on the earth's surface. These 'natural' measures, the finger, the hand, the foot, and the cubit, are slightly different, both in ratios and absolute values, in different national systems. The standard, 'the measure of a man,' is not absolutely constant, and

doubtless some amount of readjustment has to be allowed for. But we may always expect the 'finger-breadth,' or 'digit' to be taken as the lowest unit, the 'palm,' or 'hand,' to have 4 digits, the 'span' to have 12 digits, and the 'cubit' or 'fore-arm' to have 24 digits. If, as may well be the case, readjustment of units, to suit some scale, 'decimal,' 'sexagesimal,' or other, should change these relations, the change must not be too great for us to retain these names. For example, we may easily find that the 'cubit' of one age actually measures 25 'digits' of another period: but it is very unlikely, that at one and the same time, a measure recognised as a 'cubit' was consciously reckoned as 25 times a measure recognised as a 'digit.' If so, it was merely as a convention, to reconcile the scales in use and perhaps for the sake of the convenient factor 25. A 'cubit' of 23 'digits' is all but unthinkable. So, if we had to admit 28 'digits,' it would be from some intention to introduce the factor 7, but the evidence would have to be overwhelming before we could credit the statement that such '28 digits' were ever regarded as a 'cubit.' Further, the absolute values of these units do not vary much. A 'cubit' may be as small as 16 inches or as great as 21 inches, conceivably, both figures being unlikely enough, but if we should arrive at such a result as a 'cubit of 10 inches,' we should be sure that some error had crept into our calculation. We may have misunderstood the name of the measure, it may not be a 'cubit' at all, or our figures may be misread, or we may apply them wrongly. When then we find some measure termed a 'great cubit,' and find its measure quite outside 'cubit lengths,' we may be sure that it is no proper cubit at all, but a derived measure, perhaps a 'cubit' of surface, or a 'double cubit,' or some other unit to be investigated. It would be folly to assume that the corresponding 'digit' was a 24th part of it.

The works of some metrologists are in my opinion disfigured by a set of names like, *doigt*, *empan*, *coudée*, *Elle*, *Fuss*, &c., denoting nothing definite or certain, but merely serving to confuse by their unproved implications. The native names alone should be used, until absolute certainty has been reached, both as to their inter-relation and approximate size. We shall see that this is not yet the case for the Assyrian and Babylonian measures.

Compare on the natural system De Saigey, *Traité de Métrologie*, Paris, 1834, and A. Aurès, *Rec. Trav.* XIV. pp. 1—10.

251. No better illustration could be given of this thoroughly

delusive method than a comparison of the two portions of Professor Oppert's *L'étalon des mesures Assyriennes*, published, I. in 1872, *J. A.* VI. Ser. xx. pp. 157—77, and II. in 1874, VII. Ser. iv. pp. 417—486. Professor Oppert has altered many of his results since these two articles were produced as one book in 1875: so it can be no heresy to discuss them. No one can feel more genuine reverence than I do, for the exquisitely logical style and wonderful insight that these articles display: they are a literary treat as well as a scientific exposition of facts and theories. It is the method only that is in fault. Professor Oppert had already fixed, to his own satisfaction, the absolute values of the Babylonian 'foot' and 'cubit.' Not that he had been able to find any measured object, whose length was inscriptionally stated in words that could be read 'foot' and 'cubit': but, by measures of objects, such as bricks, and buildings, he had concluded that there was a certain length, which, whatever its native name, he called a 'foot,' and that it was so many millimetres. By the same sort of subjective judgement he fixed the 'cubit' as $\frac{5}{3}$ of the 'foot.' There is, as we shall see, no proof that any Assyrian or Babylonian measure was just three-fifths of any other. There is nothing in his argument that would not allow his 'foot' to be really half some measure to which the Babylonians may have given a separate name. It only indicates that when the Babylonian measures come to be fixed, we may expect to find some of them exact multiples of the lengths he proposed. The Babylonian brick, he found, had an area of a 'square foot.' There is nothing whatever to shew that this was not the square of, say, nine-tenths of a 'foot.' Even if we admit, as I am willing to do, that very likely a Babylonian foot was not far off the size he gives, none of his conclusions follow at all. He seems to have argued that the scale must be 'sexagesimal.' This is how he worked that idea out. The *canne* or *brasse* would be 6 'cubits,' or 10 'feet.' (I am not sure how far Dr Oppert knew that this was the case, but inscriptional evidence did not then exist.) The *soss* of *cannes*, or 360 cubits, he called a *stade*; the *nêr* of *cannes* he called the *mille*; and the *sar* of *cannes* he called the *schoene*. That was a terrible risk to run, to set down names for a series of measures, none of which were known to exist, and to select names which, if they meant anything, suggested other relations than those assigned to them. There were, however, a certain number of native names of measures then known to Dr Oppert, which he identified with these measures. Professor Oppert

then applied his scale to the sole known inscription, giving a length in Assyrian terms, which could be actually measured, viz. the circumference of the walls of Khorsabad. His reading of the Assyrian terms was completely wrong, but gave him the result that the Assyrian measure called *ú*, which he then identified with the 'cubit,' was actually 548 millimetres long. It was easy then to say, that the result shewed the Assyrian 'cubit' to be larger than the Babylonian. So far the first instalment of the discussion. In 1874, a fresh point had come up for consideration. A native scale had been discovered and published. G. Smith in *Z. Ae. S.* 72, 109 ff, had discussed it, and of course doubted Oppert's results. Professor Oppert was not disposed to accept G. Smith's version of the matter: he says the new scale did not necessitate the abandonment of the value already given by him for the 'cubit,' only it modified the 'gradation of the system.' The alteration he proposes is that *ú* should denote the *demi-coudée*, or 'span.'

The measures of the walls of Khorsabad were not much affected by the change. He had read the Assyrian measures as 12380 'cubits,' now they have to be taken as 12370 'cubits.' The length of 'cubit' is little altered. He then gives the new scale: the 'reed' is 6 *ú*, the *GAR* was a double 'reed,' 60 *GAR* formed an *UŠ*, 30 *UŠ* formed a *kaspu*. But his old '*canne*' had been 6 'cubits,' and it is so still, if *ú* be a 'cubit,' but not if *ú* be the 'span.' On the other hand the *GAR* must on this last supposition be the real *canne*; then the *UŠ* is really what he had called the *stade*, and the *kaspu* is really half what he had called the *schoene*. The scale is indeed 'modified.' Nothing could have occurred more calculated to inspire profound distrust of the results to be expected from postulating the existence of a strictly sexagesimal scale of relation between the consecutive units. Professor Oppert did not attempt to deal with another scale, given by the same tablet as furnished these new results, probably because he had not received a complete copy of it. But he remorselessly extended the scale above and below his new found 'span': arriving at a measure of a '*cheveu*' of ·000076 metres. There is no wonder that he was unmercifully attacked by M. Aurès, *R. T.* III. 8—27 and 155—177, &c., who shewed the absurdity of such a measure, which was below the limits fixed even by modern practical work. This writer argued, and very cogently, for the 'natural' scale of measures, derived from the human body, but he fell into a singularly similar error. He constructed a purely imaginary scale

of Assyrian or Babylonian measures, and, copying Dr Oppert, fitted them with more or less appropriate names. Professor Oppert's reply to this was obvious, M. Aurès' scale simply did not exist. It had nothing to do with Assyrian measures.

But the turn of fortune's wheel brought some justification for M. Aurès after all. The newest scale published by Dr Oppert adopts the division of the cubit proposed by M. Aurès.

Finally, Dr Delitzsch published a crushing refutation of Professor Oppert's reading of the Assyrian measures of the walls of Khorsabad, and gave one which conducts to the only 'cubit' value that has any justification so far. Professor Oppert sought to reconcile this only possible reading with his old values by applying it, not to the circuit of the walls, but to the area included within them. As we shall see, this view also completely breaks down on a careful examination. This bald statement of facts leaves on one side, purposely, the many well attested results which Professor Oppert obtained. Most of the results that are to stand were discovered by him. His articles are superb examples of the art of enquiry, of the use of hypothesis and subsequent verification. He always was ready to abandon an untenable view, or at least to modify it, so as to suit new facts. His work was greatly complicated by the existence of several distinct systems and of different scales. We shall have occasion to ascribe to him many true results and to verify them by sound evidence. His method was probably the only one then available, and his use of it was an effort of the highest genius: but it cannot be recommended for imitation now. We may not try to bend the bow of Ulysses in the days of the Mauser and the Lyddite shell.

252. Dr C. F. Lehmann has of late years made the subject of the old Babylonian measures peculiarly his own. In his article 'altbabylonisches Maass und Gewicht und deren Wanderung': *V. B. G. A.* 89, p. 245 f, he attacked the problem from a new side. Taking his stand upon the system of weights, where the actual standards in use are far better known, he used them to tabulate the possible 'cubits.' At the beginning he sets out a modified view of 'sexagesimal' demands. There were according to him units of the first class, whose scale was actually 'sexagesimal,' which we may call 'strict sexagesimals.' Their scale of values would be 216000, 3600, 60, 1, $\frac{1}{60}$, $\frac{1}{3600}$, each unit being exactly sixty times that next below it. To these he added the unities of the second

class or 'associate sexagesimals,' which are strict sexagesimals in their own scale, but each of which occupies an intermediate position between two of the first class, being tenfold the unit below it in that class, and one-sixth of that above it in that same class. These are 36000, 600, 10, $\frac{1}{6}$, $\frac{1}{3600}$. A somewhat similar fate befell this scale to that which overtook the 'strict sexagesimal' scale, in the hands of Oppert. A native scale arrived to 'modify' it. In this case, Dr Lehmann was so fortunate as to be able himself to introduce the modifier, and so to soften its effects on his system. The scale itself will be found published in Meissner's *A. B. P. R.* p. 58 of the autographed texts, and discussed in p. 98 ff of the commentary, by Drs Lehmann and Meissner together. They do not blink facts. The scale of the old Babylonian corn measures starts with 1 *ḲA* and is 'strictly sexagesimal' to some extent. There is a 60 *ḲA* denoted by the single vertical. Also the unit of the 'associate' sexagesimals is 10 *ḲA*, which has a sign of its own. Further there is a lower unit of the 'second class,' a sixtieth of this 10 *ḲA*. The existence of a still lower unit, $\frac{1}{600}$ of the unity of the first class, is theoretically to be expected. Subsequent discoveries have justified this, the *ḲA* was 60 *GIN*; but, with true scientific caution, the authors put their theoretic $\frac{1}{600}$ *ḲA* in square brackets. Now we come to the 'modification': the *soss* of *ḲA* is established, but in place of a *soss* of the 'associate sexagesimal,' 6 *ḲA*, which demands a unit of the size of 360 *ḲA*, we have the aberrant unit, *GUR*, only 300 *ḲA*. This would agree well with an 'associate sexagesimal' class based on a unit of 5 *ḲA* in lieu of 6 *ḲA*, but its relation to the strict sexagesimal would be duodecimal and not decimal. The existence of the theoretical *GUR* of 360 *ḲA* may yet be established by further discovery. Dr F. Hommel, *B. D.* p. 219, says it existed, 'in the time of Abraham'!

Drs Lehmann and Meissner state that the influences modifying the older 'strict sexagesimal' system were (1) the forcing of a decimal system into the older scheme, and (2) the building up of derived measures which were simply halves of their originals. By the latter plan, we account for the presence of units of 300, from 600, the 'associate sexagesimal,' and 180 from the 'strict sexagesimal' derivative of the 'associate sexagesimal' 6. So far for the philosophy of the sexagesimals: perfect unless a new native scale comes to light.

Dr Lehmann, further, did us the great service of pointing out by

means of his researches into the actual weight standards, what were possible 'cubit' lengths. He shewed that, on the assumption that the unit weight was that of a unit volume of water, wine or grain, the varied weight standards allowed of varied units of length. The weak point of this argument is the artificial nature of the method. It is not at all likely that when a nation adopted a slightly longer 'cubit' they also adopted a slightly larger mina weight, nor that this weight bore to the older weight a relation of $1 : l^3$, the new 'cubit' being to the old in the ratio $1 : l$. The value of such discussions, as Dr Lehmann's, in *A. M. G.* is that they furnish us with the ability to estimate, by new facts, the validity of his fundamental assumption. If we are ever in a position to shew that corresponding to the known changes in weight units, there coexisted such cubit lengths as he has shewn should accompany them, then we shall have good grounds for supposing that the ancients followed the principles of our metric system.

At present I am inclined to think the balance of evidence is the other way. The natural system of units derived from the dimensions of the human body, the selection of convenient multiples, as 2, 3, 7, 10, and the simple fractions, $\frac{1}{2}$, $\frac{1}{3}$, $\frac{1}{6}$ with their derived numbers, led to the building up of multiples, like 60 and the sexagesimal scale, to the time scale of 60, 24, 7, and so on. The control exercised over these scales by practical and pre-existing units, like an 'ass burden,' a 'camel load,' a 'month,' a 'year,' a 'pot,' or the amount of seed needed to sow a plot of ground, kept the exuberance of arithmetical systematisers in check. Customary usage must always have operated against theoretical innovations.

The existence of a 'double cubit,' as a measure, seems to have come about from the application of the sexagesimal system to natural units. The unit, as in all antiquity, was very probably the finger-breadth, or 'digit.' Then, in all probability, a natural 'cubit' was 24 times that length. This could have been brought into the sexagesimal system by taking a unit of 5 such natural cubits, the half of which would be a *soss* of digits: and a second unit, of 5 times as much, would be a *nêr* of digits. This does not appear to have been done. The actual 'digit' length was taken somewhat below its 'natural' value and the natural 'cubit' somewhat exaggerated. Hence resulted a 'foot' of 20 'digits' and a 'cubit' of 30 'digits.' The sexagesimal system then demanded a *soss* of these 'digits' which gave a 'double' cubit. It is quite conceivable that a royal edict may

have enforced the use of the same name for this measure as had been in use for the old 'cubit,' but it is hard to believe that anyone was deceived by it, or thought of the new measure as 'a cubit.' The weights would have to be made eight times as much as before, if they were really deduced from volumes. Such a change in weights is not established by any evidence at all.

Another application of the sexagesimal fancy would be the acceptance of a lower unit than the digit, a 'line' of one-sixth of the 'digit.' From this we should have a cubit of 180 lines, a foot of 120 lines. A further concession to the decimal tendency would be a re-adjustment of the 'foot' to be 100 'lines' from which a 'cubit' of 200 lines would result. This cubit would however not be a true cubit, but really 5 thirds of the old cubit, which may have been somewhat short of the 30 digit cubit. If the 'digit' was strictly uniform this cubit had been $\frac{4}{5}$ of the 30 digit cubit, and the new change to $\frac{5}{3}$ of that would result in a nominal 'cubit' of $\frac{4}{3}$ its natural size. This would perhaps account for Oppert's result, deduced from his measures of Babylonian and Assyrian buildings, that the 'cubit' was $\frac{5}{3}$ of the foot; only, as Dr Lehmann remarks, this 'cubit' is no ordinary natural cubit, but a 'great Babylonian cubit.' What he calls Oppert's 'measures' of Assyrian buildings gave the 'great cubit' a value of roughly 550 millimetres or $\frac{5}{3}$ of the Babylonian 'foot' of at least 330 millimetres. But the whole point of distinguishing the Assyrian cubit of 548 millimetres from the Babylonian cubit of 525 millimetres is that it is greater; while Oppert's measure for the Babylonian 'foot' is 315 millimetres. Hence either the 'great Babylonian cubit' is the Assyrian 'cubit' and $\frac{5}{3}$ of a 'foot' of 330 millimetres, not of a previous 'cubit'; or else the Assyrian cubit is a 'great cubit' of $\frac{5}{3}$ of a Babylonian 'cubit,' which itself was 330 millimetres and had a foot of 220 millimetres. In either case, the only actual measure appealed to would be the very doubtful 548 given by Oppert. The latter's Babylonian measures of 315 mm. for the 'foot' and 525 millimetres for the cubit are already in the ratio of 3 to 5 and give a 'great cubit' of 875 millimetres. This will not give 200 lines, and the very ingenious explanation of a 200 line cubit is still left unsupported.

253. Dr Lehmann has no less than nine different 'cubits,' *A. M. G.* p. 314 ff: each of which has some justification in history, or the allied weights and measures, but the evidence for their use as measures in Babylonia or Assyria is mostly of a shadowy character. It is evident that by an extended application of the

methods glanced at above, it would be possible to derive almost any measure from any other, if one were sufficiently ingenious. Dr Lehmann has first a Babylonian cubit of 30 digits, which he considers identical with the Greek μέτριος πῆχυς, and the Philetarian cubit, and this gives good cause to take the length of it as 497·25 to 498 millimetres. To this no objection can be made save that the evidence that it was a Babylonian cubit is purely inductive. But that may have been the Greek length, and then we come to the statement of Herodotus that the βασιλήιος πῆχυς was three digits longer than the μέτριος πῆχυς: as this latter undoubtedly had 24 digits, we see that the 'royal cubit' at Babylon was $\frac{9}{8}$ of the Greek cubit, and hence must be 559 millimetres nearly. Dr Lehmann prefers the value of 555 to 557·2 millimetres. An actual cubit measurement, or rather estimate, due to Oppert and Dieulafoy, was about 555 millimetres. This royal 'cubit' therefore has some reality about it. Now Dr Lehmann deduces that this implied a *kleine Elle des Fusses dieser Norm von* 100 *Linien*, whose length would be about 417 millimetres. Another monumental witness, the *Fuss von Ushak*, corroborates this measure. By selecting proper ratios all the other cubits and feet may be deduced from this 'cubit,' the existence of which is surmised from Herodotus, I. 178, and the measures of Oppert and Dieulafoy. These measures were presumably taken, before the conclusions of Oppert were set out, that the Babylonian cubit measured 525 millimetres. Dr Lehmann considers that this 'small cubit' was composed of 25 digits *erhohter Norm*. These digits are at most 16·8 millimetres, while those he generally uses are 16·6 millimetres. The increase is not great. This then is what seems the best attested 'cubit' of them all. His first cubit is only a Greek and Philetaric measure: its 'foot' is Oppert's deduction from his measures, and, on his own views, led to a great cubit of 550 millimetres, not to Lehmann's cubit associated with it. The second cubit has no better claim to credit than that it is the *Elle des olympischen Fusses* and would serve as basis for the Babylonian light silver talent, at least if 319·8 can be taken as equal to 320·45. The third cubit, or *Elle des ptolemaischen Fusses*, is in worse plight, having no actual measuring to support it: though it would serve as a basis for the Babylonian and Ptolemaic light talent weight: and its foot is $\frac{25}{24}$ of the Roman foot. The fourth cubit, the Euboic-Attic-Roman, relies on actual measurements of its foot and is well related to the other systems, being $\frac{9}{10}$ of one, $\frac{8}{9}$ of another, $\frac{25}{24}$ of another,

and $\frac{5}{6}$ of another, and besides serves as a basis for its own Euboic-Attic talent and Roman amphora. No one can doubt its existence, but it has no claim to be Assyrian or Babylonian. The fifth cubit, *die grosse konigliche babylonische Elle* (*zweifussige Elle*) *ursprunglicher Norm*, has no attestation at all, monumental or otherwise, only, if it did ever exist, it would have been $\frac{4}{3}$ of the *Elle des oskischen Fusses*, and double the *oskisch-italische Fuss*. The sixth cubit is purely Phoenician, and has a close relationship to the standards of Gudea, which only proves that both are accurately estimated and properly understood. These six cubits form a group, between whose members a relation more or less close can be discerned; but they can none of them claim to be Babylonian or Assyrian, only that some multiple or fraction of them agrees with either Oppert's deductions from his measures or the unnamed Gudea standards. Associated with the above 'cubit,' of 417 millimetres, with its 'great cubit' of 555 mm., and 'foot' of 277 millimetres, are two others, the *Elle des pes Drusianus* which goes back to the same 'digit,' and a fifth of which would serve as basis for the heavy royal mina, and the *Elle des grosses ptolemaisches Fusses*. Intensely interesting as are the developements to which Dr Lehmann goes on, nothing further comes of them to our purpose. The sole candidates for the honour of being a Babylonian or Assyrian cubit are the 417 millimetres, with its 'great cubit' of 555 millimetres, and a theoretic 497 millimetres. The theoretic 552 millimetres, the fifth 'cubit,' is only a small way off our 'great cubit.' Oppert's cubits of 525 millimetres and 548 millimetres do not appear. So far as Lehmann's great work shews anything, it shews that the choice lies between a measure, really Greek, the first 'cubit,' and our selection of 417 millimetres. He had nothing to go upon but measurements of unnamed lengths and Herodotus' statement: with the control furnished by the theoretical relation between lengths and weights.

Native signs and names.

254. I shall now set out the names or signs for the measures of length known to me from Babylonian and Assyrian sources. Many more will doubtless come to light when the stores of material in our Museums are further published. I may have overlooked some already known.

A measure denoted by the signs *ŠÚ-SI*, is read *ubânu*, from a

comparison of duplicate passages. The meaning of *ŠÚ* being 'a hand,' and of *SI*, 'a horn,' the ideogram meant a 'hand horn,' that is to say 'a finger.' In III. R 65, 30 a, as an omen, the birth of a child with 6 *ŠÚ-SI* on its right hand is mentioned. Hence, as a measure, there can be little doubt this sign indicated the 'finger-breadth' or 'digit,' as in all antiquity, the lowest 'natural' unit of length. In V. R. 64, 65 b, Nabonidus, speaking of his restoration of the temple Êbabbar, says that he relaid its foundation, on that of Narâm-Sin, and to shew how scrupulous was his regard for the old ground-plan, says that he did not deviate 'a digit' in excess or defect, *eli temenna Narâm-Sin ubân lâ aṣê ubân la erêbi ukîn libnatsu.* This *ubân* was therefore regarded as the lowest unit of length for building purposes. The *ŠÚ-SI* also appears as the lowest denomination mentioned in the native tables of long measure, e.g. IV. R.^{2} 37. For examples of its occurrence see Del. *H. W. B.* 8 b, Muss-Arnolt, 9 a, Meissner *Suppt.* p. 2 b. It is not desirable to render this term by 'inch,' because that has a definite length, while the *ubânu* is still undetermined. G. Smith, *Z. Ae. S.* p. 110, considers this to be a 'barley-corn.' The Hebrew אֻבְּנִים, and Arabic ابهام, may be compared with *ubânu.*

The *ḳâtâ*, written *ŠÚ-II*, or '2 hands,' is given as a measure of length in Cyrus 128. It also occurs as a mere fraction, 2 *ḳâtâ* being written for 2 thirds in *K. B.* IV. p. 214, 11, 18. It is not expressly mentioned on the Senkereh tablet, but Lepsius conjectured it there: see *A. B. A. W.* 1877, p. 121. The *ŠÚ-BAD* appears to be a measure of length in early texts, see *R. A.* IV. p. 18, and § 255, below.

The *ammâtu*, cf. Hebrew אַמָּה, is certainly the 'cubit.' It is rarely written phonetically, but *am-ma-at* occurs, *Neb.* VIII. 45. The sign *Ú* appears generally to denote this measure, but in view of the contentions of Oppert that *Ú* sometimes denotes only 'a span,' we shall retain the sign *Ú* until we are in a position to decide its real value. In our documents, *Ú* only occurs and that in the phrase *ina išten Ú*, certainly in nos. 349 and 351, probably also in nos. 352, 354, and 355. On this expression, see § 254; it may be rendered, 'reckoned in *Ú*.' In the later Babylonian texts, e.g. Cyrus 99, the dimensions are given in *Ú*, as will be seen later, but the sign *Ú* is not written. See further, Del. *H. W. B.* p. 85 a; Muss-Arnolt, p. 63; Meissner, *Suppt.* 9 b; and §§ 255, 257, 260, below. G. Smith identified *Ú* with a 'cubit' of 20 to 21 inches; *Z. Ae. S.* p. 110 f. For opinions in favour of this view, see Lepsius, *D. L. A. passim.*

The *ḳanû*, is usually written *GI*, phonetically *ḳa-ni* (*plu.*) in Sarg. *Cyl.* 65. Undoubtedly this term meant a 'reed': see Del. *H. W. B.* p. 588 b. The later Babylonian texts, e.g. Darius 37, give a *GI-Ú*, which may be regarded either as *GI* = *ḳanû* with the phonetic complement *ú*, or as *GI* + *Ú*, i.e. a measure of 'one reed and one *Ú*.' With *ḳanû*, we may compare the Hebrew קָנֶה, later Greek ἄκενα.

The *GAR*, or *ŠA*, only occurs ideographically written, unless it is to be identified with some of the uncertain measures whose names follow. It occurs as a measure of length from the earliest times onwards. It seems to be the same as the *GAR-DU* of the early Babylonian texts, unless this *DU* has some independent meaning. See, on this early measure, specially, *R. A.* IV. *passim.*

A term written *KAŠ-BU* occurs somewhat often, as a measure of length possibly, or as a term for distance. How it was read is not clear. It is generally followed by *ḳaḳḳari*, or *gaggari*, which literally means 'ground.' Thus in III. R. 35, no. 4. 11 f, Esarhaddon says that it was 30 *KAŠ-BU ḳaḳḳari* 'from the city *Apḳu* (Aphek) which was on the borders of Samaria, to the city of Rapiḥu, on the border of Egypt.' This has been taken to mean that the distance from Aphek to Rapiḥu was 30 *KAŠ-BU.* As the sign *KAŠ* means 'journey,' 'road,' and as *BU* or *GID* means 'long,' this term may be taken in an indefinite sense as a 'long way.' The numeral before it however points rather to a 'measure' of distance. In the same text, line 3, we read of 30 *KAŠ-BU ḳaḳḳar* as a journey, *malak*, of 15 days; in line 5, of 4 *KAŠ-BU ḳaḳḳar* as a journey of 2 days; in line 8, of 15 *KAŠ-BU ḳaḳḳar* as a journey of 8 days, evidently implying that two *KAŠ-BU ḳaḳḳar* was a journey of a day. Whether this implies a definite length, or mere itinerary term, like a 'day's journey,' is not quite clear. There was a time measure of 'two hours' called the *kaspu*, and our term is often read *kaspu.* It should however be carefully distinguished from *kaspu*, 'double hour,' and *kaspu*, 'money.' That *kaspu ḳaḳḳari* was the journey performed in '2 hours' is consistent with the above statement that it took ½ day. The meaning '*Doppel-stunde*' is therefore admissible. In v. R. 5, 123, we learn that the army of Ašurbânipal penetrated 60 *KAŠ-BU ḳaḳḳaru* into the interior of Elam. So too Sargon II. *Pr.* 144 states that the distance by water of the land of Tilmun, or the Isle of Bahrein, was 30 *kaspu*; but it is not clear whether we are to reckon from

Nineveh, or from the mouth of the Euphrates: see Lyon's *Sargon*, p. 14; cf. 42, *Stier-Inschrift*, l. 34 f.

The exact significance of the term *ḳaḳḳar* here is also open to question. Oppert regards it as implying a factor 360, so that *kaspu ḳaḳḳar* would be 360 *kaspu*: cf. the *ammat gagari* below. Others regard it as merely indicating 'ground' and added to distinguish linear from time measure.

Without *ḳaḳḳaru*, *KAŠ-BU* is used in I. R. 42, 13 to denote a distance; and is certainly the name of a 'measure' of length in IV. R.^{2} 37: see § 255 below. Oppert, *L'étalon* II., considered that this ideogram should be read *ašlu*: see pp. 423, 430. He also gave it the names of *plèthre* or *parasange*. G. Smith, *Z. Ae. S.* 72, p. 110, calculated it as a length of about 7 English miles: and he adds that 2 *kaspu*, or 14 miles, was a day's march, while Professor Hommel says that the 'great *kaspu*' or 21,600 cubits was covered by an average walker in four hours. The term *kaspu* was used to mark the periods of the day, $\frac{1}{12}$th of a day, or 2 hours being a small and $\frac{1}{6}$ a great *kaspu*: *B. D.* p. 219 a.

The *ašlu* is a measure of length, named in Sargon's *Annals* 321, *Khors.* 127, v. *R.* 18, 22: and often. It seems to have really meant a 'string,' or 'cord,' then a 'measuring line,' like the Arabic اشل, and Talmudic אישלא: see Del. *H. W. B.* p. 145 a; Muss-Arnolt, p. 115 a; Meissner, *Suppt.* p. 19 a. The place in v. *R.* 40, 23 a, b, seems to be the source of Oppert's *asgummu*, but that is probably the name of a plant; read *ašlum* cf. אֶשֶׁל.

Another linear measure is *ašlu ṣubban*: see § 260.

In his early views of the Assyrian and Babylonian measures Oppert regarded an *Ammat-gagar* as a measure of 360 Ellen (*amma*). He says, *Z. D. M. G.* VIII. '54, p. 594, that *gagari* is the Hebrew *gilgal*, and denotes the circle, which the Chaldaeans divided into 360 parts. It is interesting to note the grounds then deemed sufficient for determining metrological ratios. Olshausen as a note, l.c., suggested the Hebrew כִּכָּר. In *L'étalon* II. p. 443, Oppert says that 'ordinarily,' as we have 'proved' for the *ammatgagar*, the addition of *gagar* indicates the multiplication by 360. He finds the same principle in the case of the weights, where the Hebrew *kikkar*, the Assyrian *ḳaḳḳar*, and *gagar* designated the talent. His use of the term to shew that the *ugagar*, which he distinguishes from the *ammat gagar*, was an area will be noted in § 282.

The term *suklum* certainly denotes a measure of length, and may

perhaps be a synonym or ideogram for *ammatu*: see the passages in Del. *H. W. B.* p. 498, where it appears to replace *Ú*. G. Smith, *Z. Ae. S.* 72, p. 110, already concluded that it was identical with the 'cubit.' Oppert, *L'étalon* II. p. 429, identifies it with a length of 30 'ongles': i.e. one quarter of a 'cubit' and one half of the *Ú*.

The term *tibku*, or *tipku*, may be a measure of length; it is used in stating the width of a ditch, breadth of a road &c.: see Del. *H. W. B.* p. 699 b. I am not convinced that this is a measure of length. Oppert, *L'étalon* II. p. 428, considers that this means '*couche de briques*.' He thinks it would be 20 or 24 '*ongles*.'

The Senkereh Tablet.

255. The interrelations between these units are partly known from the so-called Tablet of Senkereh published IV. R². 37. This contains, beside squares and cubes, square roots and cube roots, and the remains of two scales giving the values of certain fractions of linear measures in terms of the lower units. It was discussed by G. Smith, *Z. Ae. S.* 1872, p. 110 f, Oppert, *L'étalon* II. p. 420 f, Lepsius, *Längenmasse der Alten*, p. 49 ff. There seem to be two scales partly preserved, the first giving 1 *Ú* = 60 *ŠÚ-SI* and 1 *GAR* = 20 *Ú*. It is clear therefore that at this time the *ubânu* either was not a true 'digit' or else *Ú* was not the 'cubit.' If the cubit had come to have 30 'digits,' this *Ú* must be a 'double cubit.'

In the other scale, the *Ú* also contained 60 *ŠÚ-SI*, some other measure contained 12 *Ú*, another measure contained 5 *GAR*, the *UŠ* denoted 60 *GAR*, 5 *UŠ* was 60 units of some kind, and the *KAŠ-BU* was 360 of the same unit, or exactly 1800 *GAR*. Here then we have a number of the measures of which we already know the names. The existence of two scales is puzzling, and we might imagine one to be concerned with areas and not lengths. That would be the first, as the recognised units in the second are all linear. The date of the Tablet seems to be before B.C. 2000 and not earlier than B.C. 2500. It will be noticed that it makes no reference to the *ḳanû*, or 'reed.' In both scales the *Ú* is 60 *ubânê*.

We should not be able to get far, unless the information here conveyed were supplemented by scattered hints elsewhere. We must collect these together, before we can set out any fair scale of these measures.

Early Babylonian data.

Mr Thureau-Dangin gives good reasons for supposing that in the time of the Second Dynasty of Ur, or the middle of the third millennium B.C., a measure *GAR-DU* was in use, measuring either 18 *Ú* or 20 *Ú*: see *R. A.* IV. p. 19 and 24 f. The first Senkereh scale has placed the latter beyond a doubt, and, as will be soon seen, its use explains several points that had been passed over.

Mr Thureau-Dangin brings forward as an argument for a *GAR* of 18 *Ú*, a plan of a house, where it is certain that 1 *GAR-DU* + 2 *Ú* = 1 *GI* + 9 *Ú* + the thickness of a certain wall. But if that thickness be set down conjecturally as 2 *Ú*, the *GAR-DU* must be 18 *Ú*; if, however, as the author admits it might be, the thickness was really 3 *Ú*, then this *GAR-DU* also is 20 *Ú*. Another better argument is founded on a plan of a field, said to be $11\frac{1}{2}$ *GAR-DU* long by 11 *GAR-DU* + 3 *Ú* wide, while its area is given as $\frac{1}{18}$ *GAN* 28 *SAR*: or certainly 128 (*GAR-DU*)^2. Accurately this would give *GAR-DU* = 23 *Ú*, which would suggest rather 24 *Ú* than 18 *Ú*. Taking, however, *GAR-DU* = 18 *Ú*, Mr Thureau-Dangin shews that the area would be 128 (*GAR-DU*)^2 + 135 *Ú*^{2}, a result only ·41 *SAR* in excess of its true area. He quite fairly regards this as negligible. But he does not seem to have noticed that a *GAR-DU* of 20 *Ú* would give 128 (*GAR-DU*)^2 + 90 *Ú*^{2}, or only ·21 *SAR* in excess, a still closer approximation. His examples therefore, so far from supporting a *GAR-DU* of 18 *Ú*, both make rather for one of 20 *Ú*. The existence of a *GAR-DU* of 18 *Ú*, was however a desideratum, for it would, with another assumption, equally improbable, bring Professor Oppert's figures for the Khorsabad measures into accord with facts: see *R. A.* IV. p. 18 f.

There is not a shred of evidence to shew this *GAR* of 18 *Ú* ever existed.

The existence of a measure of 12 *Ú* on the second Senkereh scale, and its position immediately before the appearance of the *GAR*, added to the facts that the *GAR* was certainly 2 *ḳanê*, or 'reeds,' while 'the reed' in other ancient systems was six cubits, formed a strong presumption in favour of restoring the last line of Col. III., in IV. R^2. 37, as 1 *GAR* (=) 12 *Ú*. That this was a *GAR* actually in use, in the Telloh period probably, has been shewn by Mr Thureau-Dangin, *Z. A.* XI. p. 431.

Further, in the later Babylonian texts of Strassmaier's publication

and other contemporary documents, a scale existed, for the measures of small plots (for building, or gardens), in which 1 *GAR* = 2 *GI*, 1 *GI* = 7 *Ú*, 1 *U* = 24 *ŠU-SI*. This scale was discovered, explained, and proved, by Professor Oppert, from an exhaustive examination, by the application of the mathematical theory of maxima and minima to a series of irregular four-sided plots: see his *Mémoires divers relatifs à l'Archéologie Assyrienne*, I. p. 17. This scale is amply corroborated by many simpler and more exact cases since published. For example, Cyrus 345 has in no less than four places ½ *GAR*, 6 *Ú*, shewing *GAR* to be greater than 12 *Ú*.

The *ḳanû*, *GI*, or 'reed' is, in each case, half the corresponding *GAR*. In many of the later texts, *GI*, of 7 *Ú*, appears written *GI-Ú*, e.g. Dar. 37. Whether this means *GI* = 6 *Ú* + *Ú* = 7 *Ú*, or whether *Ú* here is only a phonetic complement to *GI* = *ḳanû*, is not easy to decide. There is no proof that a reed, *ḳanû*, was ever 10 *Ú*.

In the text, Cyrus 128, we find a *ḳâtâ*, or 'double hand,' one-third of the *Ú*, and therefore = 8 *ŠU-SI*. On some of the early tablets, see *R. A.* IV. p. 83, a measure appears, written *ŠÚ-BAD*. It is certainly some fraction of the *Ú*, and Mr Thureau-Dangin, l.c. considers that it denotes the *empan*, or half *Ú*. That, of course, concedes that *Ú* is the 'cubit.' But in view of the later use of *ḳâtâ*, I am inclined to think that here also we are to read *ḳâtâ*, and consider it our 'double hand,' one-third of the *Ú*, and at that time therefore 20 *ŠU-SI*. Mr Thureau-Dangin seems to consider that the 7½ *ŠU-SI*, which appears to be a lower length, must be an exact submultiple of it, and so takes the *ŠÚ-BAD* as 15 *ŠÚ-SI*. This is not very convincing; 7½ is an eighth of 60, and there is no clear reason why it should be a submultiple of the *ŠÚ-BAD*. The sign *BAD* in the early *GAN* fractions denoted, as we shall see, simply a 'third.' More evidence is however needed to decide the point.

Absolute values.

256. The absolute values of the measures of length are deducible with considerable exactness from the dimensions of buildings, it being an axiom of this class of investigation that the lengths employed in architecture would always be exact multiples of the linear units employed in measuring them. Professor Oppert, as usual, led the way in this branch of the study, and in his *L'étalon* I. p. 157, in 1872, summarised the results obtained by

him in 1853, and announced in his letter to Professor Olshausen, *Z. D. M. G.* VIII. '54, p. 593 f. He there embodied the results of an enormous number of measurements of Babylonian bricks and buildings. He found his results to be practically constant from the time of Gudea down to that of Nebuchadnezzar II. He found that the size of a brick was the *pied carré* of the Babylonians, that the *pied* was three-fifths of the *coudée*, that the Assyrian cubit was the same as the Persian cubit and greater than the Babylonian and royal Egyptian cubits. Further he evaluated the Babylonian cubit as about 525 millimetres. Judging by the style of argument that he proceeds to use in that memoir, I cannot help thinking that most of these results were due to a personal conviction acquired on certain points, and an acute combination of facts and fancies that would not bear rigid examination. At any rate his 'measures' of bricks could only fix their size, not how many 'feet' or 'cubits' they were. The standard size of a brick might well be so many 'digits' each way. Who can say whether these 'digits' were each the 24th of a cubit, or its 60th? Unless we know how many 'digits' they had in each side, we cannot know the size of the 'foot' or the 'cubit.' Further the supposed relation of the 'foot' to the 'cubit,' though not without parallel, is very suspicious indeed. Nevertheless, Dr Lehmann, in his great article, *Altbabylonisches Maass und Gewicht und deren Wanderung*, in the *Verhandlungen der Berliner Gesellschaft für Anthropologie*, &c., 1889, p. 245 following, quoted here as Lehmann, *A. M. G.*, accepts a Babylonian 'foot' of 330 millimetres, and an original 'great royal cubit' of 550 millimetres. It will be noted that these 'measures' only apply to Babylonia.

But Oppert's 'measure' of the Assyrian cubit as 548 millimetres was, as far as I can see, clearly obtained from his estimates of the Khorsabad measures. As he has long abandoned these and substituted others, the only reason to think of such a 'cubit' is its theoretical relation to other known or imagined measures. So too the terms of his letter to Olshausen, *Z. D. M. G.* '54, p. 593 f, make me think that his conception, that Herodotus had identified the *ammatgagar* with the *stadium*, influenced a selection of figures for his 'foot' and 'cubit,' the same as the Egyptian values. He only says '*Ich habe aus Messungen der Ziegel und anderer Bausteine geschlossen*,' and I venture to think that he might have concluded very differently if he had not known of Herodotus and the East India House text. Without presuming hastily to reject

authority so high, we must have surer ground than that by taking properly selected fractions of these measures, we can arrive at other measures fairly consistent with the results of equally capricious treatments of other facts. This is really all that Dr Lehmann can claim for many of his comparisons.

The Khorsabad measures.

257. In his Cylinder Inscription, Sargon II. gives as the measure of the walls of his new city Dûr-Sargon, the modern Khorsabad, 4 *šar*, 3 *nêr*, 1 *šûšu*, 3 *ḳanê*, 2 *Ú*, or $4 \times 60^2 + 3 \times 600 + 60 + 3$ *ḳanê* and 2 *Ú*. The whole difficulty about this number lies in the question whether the *UŠ*, which I have read *šûšu*, is a measure or a numeral. In other words, is it 60 *GAR*, as the Table of Senkereh gives, or are we to take the whole as a number of *Ú*? There is no question that *šâr*, *nêr*, and *šušu* are numbers, and that we are to take 14400 + 1800 + 60 of some unit: to which we must add the 3 *ḳanê* and 2 *Ú*. If *UŠ* is a measure and means 60 *GAR*, then as *GAR* is the first named unit of length we must read 16260 *GAR*, 3 *ḳanê*, 2 *Ú*. If *UŠ* is merely a numeral, we must read 16260 *ḳanê*, 3 *ḳanê* and 2 *Ú*, because the *ḳanû* is the first named unit. Now there is a duplicate passage inscribed on the Bull Colossi from Khorsabad, which gives the same measurement as 4 *šar*, 3 *nêr*, 1 *šûšu*, 1½ *GAR*, 2 *Ú*. Consequently the 1½ *GAR* are equal to 3 *ḳanê*, and we may regard the *UŠ* as certainly 60 *GAR*. The reading 16263 *ḳanê* would not agree with the duplicate. The figures then denote 16261½ *GAR*, 2 *Ú*. It still remains uncertain whether *GAR* = 12 *Ú*, 14 *Ú*, as in later Babylonian times, or 20 *Ú*, as in the first Senkereh scale. As we shall have to refer later to these Khorsabad measures, I shall call Khorsabad A, 195140 *Ú*; Khorsabad B, 227663 *Ú*; and Khorsabad C, 325232 *Ú*.

Delitzsch seems to assume that a measure *šâr* existed, of 3600 *Ú*; a measure *nêr*, of 600 *Ú*; and a measure *UŠ*, of 60 *Ú*; and assuming that the *ḳanû* = 6 *Ú*, which it does sometimes, he has 16260 *Ú* + 20 *Ú*, and obtains, as what I shall call Khorsabad D, the figures 16280 *Ú*.

Oppert read successively 12370 *Ú*, 12380 *Ú*, 24740 *Ú*, the last in *L'étalon*, II. p. 424. More recently, his reading in *Revue d'Assyriologie*, vol. III. p. 92, is '*Quatre sar, trois ner un soss de perches, une perche et demie et deux aunes*,' whence he gets 195140 *mesures*, agreeing with Khorsabad A. The others I shall call Khorsabad O[1],

O^2, O^3. The strange thing is, that in the able hands of metrologists, each separate estimate has been treated as a startling confirmation of some pet theory.

The one solid fact deducible, from this inscription, as to scales, is that *GAR* = 2 *ḳanê*. The *GAR* may therefore be called a 'double-reed'; G. Smith already had called it a *diaulon*, *Z. Ae. Sp.* 1872, p. 109 f. But it is far better to retain the symbol *GAR*, whose reading we do not know, until we are approximately certain of its length. In later times also, ½ *GAR* is reckoned as equivalent to 1 *GI-MEŠ* or 1-*GI-Ú*, see Strassmaier's Nbkd. 4, and Dar. 37: but this is certainly an areal measure. Nevertheless it is indirect evidence that at that period *GAR* = 2 *ḳanê*. It does not follow that *GAR* was always 2 *GI*. The text of the inscriptions will be found in Lyon's *Sargon*, Cylinder line 65, p. 10; *Bull Inscriptions*, line 79, p. 17: compare pp. 38, 44, 76. On the reading of the figures see Oppet, *L'étalon*, I. p. 165 f., II. p. 424; Delitzsch, *Z. Ae. Sp.* 1878, XVI. p. 56 ff.

25. The dimensions of the buildings at Khorsabad were determined by presumably accurate measures and published in Botta's great work, *Monument de Ninéveh*, v. p. 27 f. They were reproduced, without material alterations, in Place's *Ninive et l'Assyrie*, I. p. 160: as accurately determined by Botta, Flandin and Place and have never been questioned. At first it was assumed that the 'measure' of the city intended by Sargon II. was its circumference. The city walls formed a rectangle of nearly equal sides; accurately it was 1645 metres wide and 1750 long: thus giving a circumference of 6790 metres. Oppert's first value, O^1, or 12370 *Ú*, gives a value for *Ú* of 548·8 millimetres, his second value, O^2, or 12380 *Ú*, gives 548·4 millimetres, his third value, O^3, or 24740 *Ú*, gives the value 274·4 millimetres. Delitzsch's value, D, or 16280 *Ú*, gives the value 417 millimetres; about 16½ inches. It is undoubtedly small for a 'cubit,' but Lehmann says it is the *kleine Elle erhöhter Norm von* 100 *Linien*, *A. M. G.* p. 316. It therefore belongs to the system of the Royal Babylonian measures: and corresponds to a 'great cubit' of 555 millimetres. If we take the results Khorsabad A, B, or C, we shall obtain values for *Ú* from an inch and a half to about three-quarters of an inch. These are quite absurd, the *Ú* is certainly, as we shall see, either the 'cubit' or a 'half cubit.' Professor Oppert in his last memoir on the Khorsabad measures sees that any such value for *Ú* is out of the question. So he gives up

the circumference theory and supposes Sargon's 'measure' to be the 'area' of his city. We shall return to that view later: in § 281. This only is certain, that the measures of Khorsabad do not give his length of the cubit directly. What then happens to the 'cubits' of 550 millimetres, and the 'feet' of 330 millimetres? It is not easy to say, for which was data and which deduction in these metrological essays I do not know.

The Gudea scale.

259. The discovery, in 1881, by De Sarzec, at Telloh, of a seated statue of Gudea afforded a fresh chance of controlling the proposed measures of length. The statue has on its lap a plan of a building and a graduated rule. An account of this statue, its inscription and measures, is given in De Sarzec's *Découvertes en Chaldée*, plate 15, &c. The rule was divided into 16 units, each of length 16·5 to 16·6 millimetres. Professor Oppert, of course found in it a direct confirmation of his views. Mr Aurès discussed it as a confirmation of the 'natural' system of measures, regarding it rather as a scale than a measure. Professor Hommel states that there were only 15 divisions, and that these formed half a cubit. Each of these 'finger breadths' was further divided into 180 parts: see *B. D.* p. 219 a. One thing only is of lasting value, the size of the unit found. It is reasonable to suppose that this unit was a 'digit' or *ubânu*. Oppert's Babylonian 'foot' above is then 20 'digit,' and his 'cubit' $33\frac{1}{3}$ 'digits.' If we suppose his ratio 5 to 3 erroneous, the usual 'cubit-foot' ratio, of 3 to 2, would give a 'cubit' of 30 'digits.' His Assyrian 'cubit' would be 33 'digits.' These values do not commend themselves as probable. Delitzsch's cubit, of 417 millimetres, would be 25 digits, not far from the probable truth: which Professor Oppert takes to be 24 digits in later times.

On the Gudea rule we find a smaller division one-sixth of the unit, and even one still less, a third of that. This small division of some 2·7 millimetres has been called a 'line': and upon it Lehmann builds many results. But it has not been shewn that it represents a real measure used by the ancients, and on the very reasonable theory that we have a scale instead of a rule, the 'line' merely represents the *Ú* and the larger units represent 'reeds.' However, unless the divisions of this rule can be shewn from other sources to denote actual measures, and their real names fixed, the rule of Gudea is of

no assistance whatever. So far as it goes, it supports Delitzsch's Khorsabad cubit beyond all others. The variety of cubits, deduced from various sources, by Dr Lehmann and partly tabulated *A. M. G.* p. 314 f., can scarcely reasonably be supposed to have existed, especially when we recall Professor Oppert's dictum that the dimensions of the brick remained unchanged all through the ages. We may however bear them in mind as we proceed to less direct methods of finding the lengths of our units, and must render unstinted praise and endless gratitude to those who have left no method untried to arrive at the truth. Even to have shewn a result impossible is a gain.

260. We have another indirect way of arriving at the lengths in use in Assyria and Babylon. Dr B. Meissner published in conjunction with Dr P. Rost, *B. A. S.* III. p. 358 f., an inscription of Esarhaddon's concerning his buildings in Babylon. In this text, *Bu.* 88, 5 – 12, 75 + 76, the king states, reverse line 20, and Col. VI., 34 ff., that the wall, Imgur-Bêl was 30 *ašlu*, each side. This was the wall of Babylon, and Herodotus, I. 178, states that each side of the city was 120 stadia. Hence Dr Meissner very reasonably concludes that an *ašlu* was 4 stadia. In the same inscription, Esarhaddon states, Col. VI. 30 f., that each side of the temple of Bêl, Ê-Temenanki, was 1 *ašlu ṣubban*, while Herodotus, I. 181, says that each side of the ground plan of the temple of Bêl was 2 stadia. Hence the *ašlu ṣubban* was 2 stadia long. Now the stadium, reckoned on the scale of the πῆχυς μέτριος, which Herodotus probably had in view, is independently reckoned to be about 189 metres. Delitzsch's cubit, of 417 millimetres, therefore gives about 1800 cubits for the *ašlu*. Oppert's great Assyrian cubit of 548 millimetres gives 1361 cubits; his own *stade* of 360 cubits would give an *ašlu* of 1440 cubits. He himself finally (?) determined the *ašlu* as 60 cubits, *G. G. A.* '84, p. 334. Now 1800 cubits is a very likely figure, despite the doubtfulness of the manner in which it is deduced. In any case we know that the *KAŠ-BU* is 1800 *GAR*. Hence there is some reason to suppose that the *KAŠ-BU* = 12 *ašlu* = 21600 *Ú*, and that *Ú* is a cubit of 417 millimetres. It is however very slender evidence. The facts are simply these, the *ašlu* is 4 *stadia*. The *ašlu* = 2 *ašlu ṣubban* and the *ašlu ṣubban* = 2 *stadia*. The facts implied in the discussions of the areas which follow may here be added and the whole combined into the following table.

TABLES OF LINEAR MEASURE.

261. I. Early Babylonian, Gudea's rule, First Senkereh scale.

					UBÂNU =	16·5	millimetres
			Ú =	60	,, =	990	,,
		GAR =	20	,, = 1200	,, =	19·8	metres

II. Babylonian, Gudea's rule, Second Senkereh scale.

					UBÂNU =	16·5	millimetres
			Ú =	60	,, =	990	,,
		GAR =	12	,, = 720	,, =	11·88	metres
	KAŠBU =	1800	,,	= 21600 ,, = 1296000	,, =	21384	,,

III. Transition from Gudea's 'digit' to Sargon's 'cubit.'

					UBÂNU =	16·6	millimetres
			AMMATU =	25	,, =	415	,,

IV. Sargon's Khorsabad Measures, scale of II. and III. combined.

					ubânu =	17·4	millimetres
			AMMATU =	24	,, =	417	,,
		ḳanû =	6	,, = 144	,, =	2·502	metres
	gar =	2	,, =	12 ,, = 288	,, =	5·004	,,

V. Esarhaddon's Babylonian Measures, conjectural scale, combined from II. and IV.

						ubânu =	17·4	millimetres
					ammâtu =	24	,, =	417	,,
				ḳanû =	6	,, = 144	,, =	2·502	metres
			gar =	2	,, =	12 ,, = 288	,, =	5·004	,,
		ašlu ṣubban =	75	,, =	150 ,, =	900 ,, = 19800	,, =	375·3	,,
	AŠLU =	2	,, =	150 ,, =	300 ,, =	1800 ,, = 39600	,, =	750·6	,,
kašpu =	12	,, =	24	,, =	1800 ,, =	3600 ,, = 21600	,, = 475200	,, =	9007·2	,,

VI. Babylonian, Second Empire, Oppert's scale, double 'cubit.'

					ubânu =	35	millimetres
			ammâtu =	24	,, =	834	,,
		ḳanû =	7	,, = 168	,, =	5·838	metres
	gar =	2	,, =	14 ,, = 336	,, =	11·676	metres

The measures of area.

262. The discovery and publication, of late years, of the early inscriptions from Telloh, Nippur, and other ancient Babylonian cities, have placed our knowledge of this branch of metrology on a different footing. So fundamental is the change that Professor Oppert, who had made the subject peculiarly his own, and was for most metrologists the only source of information, and who had published a very full and exhaustive table of measures of area and capacity, now withdraws his former results. In a note to his article, *L'arpentage des quadrilatères Chaldéens*, *Z. A.* XII. p. 110 f, *note* 2, he says, *tous les essais que j'ai autrefois tentés pour déterminer par la comparaison des aires et des volumes les différentes mesures de ces deux catégories, doivent être regardés comme dénués de tout résultat.* Only a great man could pen such an avowal, after forty years of work at the subject. I had felt profound dissatisfaction with the results usually accepted, and mostly to be traced to Professor Oppert, and had spent months tracking out each error and its source: before I came upon this withdrawal. I shall have less hesitation now in setting out my views afresh, and independently. As the result of my examination of the previous attempts I may be permitted to state that many errors arose from too hastily applying well-known names, such as '*cubit*,' '*foot*,' '*epha*,' '*bath*,' '*cab*,' '*toise*,' '*aune*,' &c. to the ancient measures, before the nature of those measures was certainly made out. The names so applied carried with them their own implications, which suggested wrong combinations. Further the metric system, where a litre is a unit of capacity, and the weight of a decalitre of water a unit of weight, obscured the more natural methods of ancient peoples, who probably never cubed anything at all in such calculations. One or two errors must be referred to in passing, for the sake of clearness, but it would be ungenerous now to make any lengthy exposure of them.

263. Regarded from the point of view evidently taken by the ancient Babylonians and Assyrians, and very clearly expressed in the names and notation of the measures of length and area, surface was not 'square' measure. It was primarily measured, as one would expect, by a unit of its own kind. Regarded from the agricultural point of view it was related to the amount of seed needed to sow it, or the crop it would yield. As the knowledge of mathematics developed, and the relation between the area and its sides dawned

upon men, it was still measured by a unit of its own, but the unit was a strip of uniform width and measured by its length; just as one might measure the area of a room by the length of carpet needed to cover it. Of 'square measure,' in its proper sense, I have failed to find any trace. As far as I can see, it did not occur to a Babylonian or Assyrian to multiply the length by the breadth and divide by the area of some unit expressed in 'square measure.' The areas of triangles, rectangles, polygons were found, sometimes exactly, sometimes approximately, sometimes in excess, sometimes in defect. What rule was employed we do not know yet, possibly a skilled surveyor estimated roughly the area, as one would estimate the area of a field, by ocular estimate. The record of the sides would serve as an additional means of identifying the plot, and in the event of its division would help to calculate the areas into which it fell. The results given in the very numerous examples of field measures prove conclusively that the calculators did not use modern geometrical methods; unless we are to assume that the 'measurer,' *mandidu*, set down incorrect results for purposes of his own. The difficulty of reading some of these figures, increased by the not infrequent corrections the scribe made to his own, or his master's work, has in some cases no doubt misrepresented the surveyor's problem, or its results, but the examples of approximation are too numerous to allow us to credit him with modern methods. I think that this contention will be fully sustained later, see §§ 276—280, and we may regard with suspicion any such statements, as that an area was the square of any particular linear measure. When we find such to be the case, without question it simply means that the width of the areal strip happens for that particular case to be the same as its length.

It must be obvious that the possession of some table of previously calculated, or experimentally attested, results was the probable method. Such a tablet as that published IV. R. p. 37, giving a series of squares of simple numbers, cubes, square roots and cube roots, measures in long and square (?) measure, was probably in the hands of the old surveyors, who certainly formed a class or guild of men called *apil mandidi*, or 'the sons of the measurer,' i.e. like the sons of the prophets, a school or 'guild of measurers.'

264. Some indication of the way in which these results were regarded is furnished by the above-mentioned tablet, usually known as the Tablet of Senkereh. In the indication of squares we read 1 *adu* 1, (equals) 1; 2 *adu* 2, (equals) 4; 3 *adu* 3, (equals) 9; and so

on. Now the usual meaning of *adu* is 'together with,' and should be the sign rather of 'addition' than of 'multiplication.' We must however render 'by,' as in our usual phrase, '3 by 3.' Still we may suppose that the area 9 was contemplated as a strip 3 long and 1 wide, added 3 times. The first 3 indicates the unit strip, 3 long and 1 wide; the second 3 indicates the number of such strips. Unfortunately the table is incomplete, or we might have had examples of 3 *adu* 5 (equals) 15, and the like.

In accordance with this view, we find that *GI*, being a measure of length, a square of which the side measured 1 *GI* each way, is denoted by 1 *GI-MEŠ*, the apparent plural of *GI*. This is certainly a singular, and not a real plural, for it is preceded not only by the numerals above 1, but also by 1. So an area 5 *GI-MEŠ* was regarded as equivalent to a strip 5 *GI* long and 1 *GI* broad. It will be seen that this is the only areal measure that can be regarded as a square in later times. In the earlier times the areal width was perhaps a *GAR*.

Another example is the sign *GAR-ZUN*, written *ŠA-ḪI-A*. Now as is well known *ZUN* or *ḪI-A* is a sign of 'multitude,' rendered perhaps *ma'du* or 'many.' It appears often to be loosely used, merely to indicate the plural, but, as Hilprecht, *B. E. P.* IX. p. 20, *note* 1, points out, had rather a 'collective' than a 'plural' meaning. Hence 1 *GAR-ZUN* clearly embodies the same idea as 1 *GAR-MEŠ* might have done. 1 *GAR-MEŠ* does not actually occur however. 1 *GAR-*(*plu.*), or 1 *GAR* (*coll.*) does not mean a plural of *GAR*, but what we might call 'a surface *GAR*,' an area of which one side was '1 *GAR*,' the other 1 *GI* long. It may have been read 1 *GAR ma'du*, or 1 *GAR ma'attu*, if *GAR* was feminine. This would not mean 'a great *GAR*,' that is, a *GAR* larger than usual, but an *areal GAR*: what we call a 'square measure.' This appears to be the early square unit: but, in later times, at any rate the *GAR-ZUN* was not a square at all: but apparently a *GI* wide and 5 *U* long.

So the expression *Ú-rabîtu* does not necessarily indicate 'a great cubit,' in the sense of a cubit larger than ordinary, but if *Ú* is a cubit, means what we should call 'a square cubit.' The value of *Ú* here may or may not be a cubit, that must be decided from other considerations, but as *rabîtu* shews, *Ú* was a feminine. This is one argument that we should read *Ú* as *ammatu*, in which case we can hardly imagine it other than 'a cubit.' However, other measures

may have been feminine also, as *ḳanû*, *ubânu*, &c., certainly were. As the inscriptions shew, it was a linear measure also, see Lyon's *Sargon*, p. 82; we may suppose it was a 'great cubit,' but it is quite justifiable to suppose it an areal 'cubit,' that is an area contained by two sides, one of which was a cubit long and the other probably a 'reed.'

Further examples of this expression of areal values by the plural sign, by *ZUN*, *ma'du*, and *rabîtu*, are to be expected with the publication of more texts.

The discovery that the *ammatu rabîtu* is five-thirds of the ordinary *ammatu* may be only apparent from confusing the 'areal cubit' with the 'linear cubit.' If the figures were accurate it would only mean that the *Ú rabîtu* denoted an area, which contained five-thirds of a square *Ú*. That is a very unlikely result and points to a misunderstanding of the data. The rendering 'greater cubit' and all related and deduced measures are to be given up. Even the rendering 'Quadratelle' implies more than the native expression; it is not to be assumed without proof, that the *ammatu rabîtu* was a '*square ammatu*': all we can assume is that it was an *areal Ú*.

The GAN-SAR measures.

265. In the early Babylonian documents, reaching back to the time of the first Sargon, or even earlier, see *R. A.* IV. p. 27, the signs in use to denote areas were the *GAN*, the *SAR*, the *GIN* and the *ŠE*, Brünnow's nos. 3169, 4286, 11899, and 7418. How these were read we do not yet know. Mr Thureau-Dangin, *R. A.* III. p. 146, suggests that we should read *GAN* as *ginû*, with the meaning 'field,' and *SAR* as *mušarû*, with a meaning 'garden,' or *kirû* with the same sense. The sign *GIN* was later read *šiḳlu*, when applied to 'money,' but this is out of question here. *ŠE* is always used as an ideogram for 'corn' or 'grain,' and was then probably read *še'u*, but such a reading here is doubtful. Other measures are indicated, apparently as subdivisions of the *GAN* or *SAR*, by signs, which can be read as fractions, or as multiples of the lower denominations, but which may have equally well been signs for separate measures. Thus one-third of the *GAN* may be expressed as so many *SAR*, but is not unlikely to have had a name of its own. The names of all these signs, however, still remain to be discovered.

The GUR-ḲA measures.

266. In Babylonia, from a somewhat later period, down to the latest times of which we know, as well as in Assyria, a system of signs was in use to denote agricultural areas, borrowed directly from the measures of capacity. It will therefore be necessary here to anticipate somewhat, and give the measures of capacity, only reserving for a later section the points specially concerning their rise as such.

At a time coeval with the last-named measures of area, the measures of capacity were chiefly three, the *GUR*, the *ḲA*, and the *GIN*. The subdivisions of the *GUR* are indicated by special signs which may be read as fractions, $\frac{1}{30}$, $\frac{2}{30}$, &c. of the *GUR* or as multiples of the lower denomination, the *ḲA*. That these were measures with proper names of their own is very probable, as we shall see later.

The GAN-SAR scale.

267. The scale of relation between the *GAN-SAR* system of land measures has already been settled by Reisner, *S. B. B. A.* 1896, p. 417 f. The *GAN* had 1800 *SAR*, the *SAR* had 60 *GIN*, and the *GIN*, 180 *ŠE*. Above the *GAN* the *SIK-UḪ-ME-U* had 3600 *GAN*. This scale is very typically 'sexagesimal.' It will be noted that there is a wide gap between the *SAR* and *GAN*. This was occupied by a series of quantities, which are as yet only found expressed as fractions or subdivisions of the *GAN*. That they were nameless seems to me very improbable. The figures occurring before the *GAN* are (i) a slant wedge, easily mistaken for a single vertical, downwards from right to left, with its head to the upper right hand, (ii) the horizontal wedge, or bar, with its head to the left, (iii) a slant wedge downwards from left to right with its head to the left, (iv) the sign *BE* or *BAD*, Brünnow's no. 1471, (v) the sign *u* usually read *ten*, (vi) a sign not given in Brünnow, being the crotchet or *u*, crossed by 2 slant wedges diagonally each way. These signs and their values as fractions of the *GAN* are given by Thureau-Dangin in *L'écriture cunéiforme*, p. 85 ff, where also their early representatives are shewn. There they are stated to be respectively $\frac{1}{72}$, $\frac{1}{36}$, $\frac{1}{18}$, $\frac{1}{3}$, 1, 10. Professor Oppert, *C. R.* Aug. '96, Oct. '96, *R. A.* IV. 32, &c., gave their values as eighteen times as much. It is certainly very curious that the Babylonians should have

made such an extensive use of fractions, which, expressed in terms of the lower denomination *SAR*, were such non-sexagesimal quantities as 25, 50, 100, and 600 *SAR*. According to Oppert's view the only fractions of the *GAN* were the quarter and the half, expressed by (i) and (iii). The horizontal bar being read as 1, as was also the case in the contemporary *GUR-ḲA* system, the sign *BE* was read as 6, the crotchet *u* as 18, and the sign (vi) as 180. These are much less convincing, and, despite Professor Oppert's contentions against Reisner, the latter in *Z. A.* XI. p. 422 seems to have proved his case. Mr Thureau-Dangin, *R. A.* IV. 18 ff, IV. p. 80 ff, *Z. A.* XI. p. 428, &c., has completely adhered to them. It is of course clear that as far as a scale is concerned the two views are practically the same: but Professor Oppert had to take two or three separate scales in order to agree with the data of the few documents treated by him. These would have to be again modified for others.

The GUR-ḲA scale.

268. From the time of Sargon I., see *R. A.* IV. p. 27, at least, and onwards, we find areas denoted by the signs *GUR* and *ḲA*, and the signs for the subdivisions of the *GUR* also applied freely, as land measures. In order to make clear this notation, we must anticipate the scale of these measures. Reisner has shewn, *S. B. B. A.* 1896, p. 417 f, that the *GUR* then had 300 *ḲA*, and the *ḲA* was further divided into 60 *GIN*. For measures of seed, the *GUR* was then always preceded by the *sign ŠE* indicating 'seed.' The sign used to denote $\frac{1}{300}$th of the *GUR*, or 10 *ḲA*, is like that read *BAR*, Brünnow's no. 1720, and formed of one vertical bisected horizontally by a bar. At this period then, *BAR-ŠE-GUR* may be read either $\frac{1}{300}$th (not $\frac{1}{2}$, as *BAR* usually is read) of a *GUR* of 'seed,' or 10 *ḲA* of 'seed.' The next sign is like *PA*, Brünnow's no. 5559, formed by one vertical with two horizontal bars. Thus *PA-ŠE-GUR* is to be read, $\frac{2}{300}$ths of a *GUR* of 'seed,' or 20 *ḲA* of 'seed.' The next sign is written like *AŠ*, Brünnow's no. 6739, with one vertical and three horizontal bars, and is to be read $\frac{3}{300}$ths of a *GUR*, or 30 *ḲA*, of 'seed.' The next sign is unlike any sign in Brünnow's list, but consists of a vertical with four horizontal bars, also accompanied by one crotchet, or *u* sign, such as is usually used to denote 10. This, followed by *ŠE-GUR*, is to be read $\frac{4}{300}$ths of a *GUR* of 'seed,' or 40 *ḲA* of 'seed.' The next sign consists of a vertical crossed by

six horizontal bars, with two crotchets added, and, before *ŠE-GUR*, is to be read $\frac{5}{30}$ths of a *GUR* of 'seed,' or 50 *ḲA* of 'seed.' Here we may remark that in this notation, the crotchet or *u* sign seems to mark the addition of ten *ḲA*. The next sign is a single vertical, such as used to indicate 60 in numbers. Before *ŠE-GUR*, it is to be read $\frac{6}{30}$ths of the *GUR* of 'seed,' or 60 *ḲA* of 'seed.' Twice as much is indicated by 2 verticals before *ŠE-GUR*, denoting $\frac{2}{5}$ths of the *GUR* of 'seed' or 120 *ḲA* of 'seed.' Here, however, the verticals are not placed side by side, as was usual later in writing numbers, but one over the other. Three times as much is indicated by three verticals, 2 short, one above the other, followed by one long vertical, like the sign *a*, Brünnow's no. 11316, but inverted. Four times the amount was written with four short verticals, like the sign *za*, Brünnow's no. 11719, followed, of course, by *ŠE-GUR*. Finally 1 *GUR* of seed, was written 1 *ŠE-GUR*, the 1 being the horizontal bar: for 'ten' *GUR*, the *u* sign or crotchet is used, for 60 the single vertical, and then the usual signs, *nêr* and *šâr*, for 600 and 3600, as in ordinary enumerations. The derivation of the earlier five signs, as I believe, really fractions, is shewn by Mr Thureau-Dangin, *B. A. S.* III. p. 589, to be from pictures of a pot, with lines drawn across to denote how full it is. This pot must have contained one-fifth of the *GUR*, and could hardly have remained nameless as a measure. The marking by one, two, and three bars must have been always fairly distinct, but 4 and 5 bars were probably soon liable to misreadings. Hence, I believe, the crotchets were added, each to indicate the addition of 10 *ḲA*. The whole table will be given in the Appendix, p. 3, for reference, with the later signs, derived from them.

The numbers of *GIN* were indicated by the ordinary numerals, from 1 up to 60. Although not yet authenticated, there is every probability that as in the contemporary land measures, the *GIN* contained 180 *ŠE*. Whether that really indicates that a *GIN*, as a corn measure, contained actually 180 seeds of corn must remain an open question at present.

Reisner, *S. B. B. A.* 1896, p. 417 f, also points out a very high multiple of the *GUR*, denoted by the signs *SIK-UḪ-ME-U*, which denoted 3600 *GUR*. This is Brünnow's no. 10808, pronounced *GÛR* and interpreted as *karû*, perhaps the contents of a normal 'granary,' or storehouse: which very likely was an underground 'silo.'

This scale seems original. If there ever had been 360 *ḲA* in the *GUR*, it is probable that the single vertical would have been taken as 60 *ḲA*, and when the *GUR* was changed to 300 *ḲA*, the vertical would have denoted $\frac{1}{6}$ *GUR* as it always did.

269. These measures of corn were apparently so closely related to the areas which they would seed, or which would produce them, that their signs were used also to denote land areas. Before dealing with the points peculiar to this usage we had better note the changes that took place in the signs themselves. As applied to land, the sign *ŠE* disappeared from before *GUR*. The fractions also changed their form, becoming simplified. Thus *BAR*, *PA* and *AŠ* are used alone to indicate $\frac{1}{30}$th, $\frac{2}{30}$ths, $\frac{3}{30}$ths of the *GUR*, either in combination with it, or alone. The next sign, denoting $\frac{4}{30}$ths, became simply *AŠ-U*; the next, denoting $\frac{5}{30}$ths, became simply *AŠ-U-U*. In place of 1 *ŠE-GUR*, a new sign denoting $\frac{1}{5}$th of the *GUR*, and made like *PI*, Brünnow's no. 7960, was used. This *PI* was omitted, if followed by other fractions, which with these changes continued to be written as before. The peculiar writing of 2, 3, 4 was retained for the fifths of the *GUR*. The *GIN* appears to have gone out of use.

In the later Babylonian times the *GUR* contained only 180 *ḲA*, but the same signs for the fractions of the *GUR* remained in use, the *PA* still indicating $\frac{2}{30}$ths of the *GUR*, but now of course only 12 *ḲA*. At what date this change took place is not easy to settle, but the Merodach Baladan stone, at any rate, still retains the old scale of 300 *ḲA* to the *GUR*. It is likely enough that royal usage would retain old customs after they had been modified in daily life: but the date is doubtful.

In order to distinguish this later *GUR* of 180 *ḲA* from that of 300 *ḲA*, I shall in future write it *gur*. We do not know quite certainly that the *ḲA* was unchanged; but I believe it was either the same, or one-quarter of the old value.

At any rate in later Babylonian times, as Strassmaier's texts shew, the notations of the areas and measures of capacity were completely assimilated. Both as land and as corn measure, the *GUR* contained 180 *ḲA*, the *PA* of land or corn contained 12 *ḲA*, and so on. We may therefore formulate the following table for later times as applying to land and corn measures.

BAR = 6 *ḲA*
PA = 12 *ḲA*
AŠ = 18 *ḲA*
AŠ-u = 24 *ḲA*
AŠ-2u = 30 *ḲA*
PI = 36 *ḲA*

1 *BAR* or 1 *PI*, *BAR* = 42 *ḲA*	2 *BAR* or 2 *PI*, *BAR* = 78 *ḲA*
1 *PA* „ 1 *PI*, *PA* = 48 *ḲA*	2 *PA* „ 2 *PI*, *PA* = 84 *ḲA*
1 *AŠ* „ 1 *PI*, *AŠ* = 54 *ḲA*	2 *AŠ* „ 2 *PI*, *AŠ* = 90 *ḲA*
1 *AŠ-u* „ 1 *PI*, *AŠ-u* = 60 *ḲA*	2 *AŠ-u* „ 2 *PI*, *AŠ-u* = 96 *ḲA*
1 *AŠ-2u* „ 1 *PI*, *AŠ-2u* = 66 *ḲA*	2 *AŠ-2u* „ 2 *PI*, *AŠ-2u*, = 102 *ḲA*
2 *PI* = 72 *ḲA*	3 *PI* = 108 *ḲA*

and so on up to *GUR* = 180 *ḲA*.

This table was first set forth by Professor Oppert, *Z. A.* I. p. 88 f, and is repeated in Brünnow, p. 492.

270. The use in Assyria differed in some points. On one side it shews more affinity with the early system, but it had its own peculiarities. The *gur* or *GUR* completely disappeared. Instead, we usually have areas expressed, as well as corn measures, in *homers* and *ḳa*. As we do not know that the *ḳa* was the same as the Babylonian *ḲA*, I distinguish them in writing. The *homer* is expressed by the sign *IMER*, Brünnow's no. 4981, the same sign as used for the 'ass,' and, as a determinative, before the names of animals. It has been conjecturally read *imeru*, and may be connected with *amâru*, 'to fill,' and *ummaru*, 'a pot.' It is possible, however, that the measure of corn meant by it was an 'ass-load,' and the *GUR*, a 'camel-load': see Peiser, *Skizze*, p. 22. This is a conjecture only, and it may be really 'a pot,' perhaps of the size which held an 'ass-load' of corn, or merely another pot, called perhaps *imeru*. But whatever the exact derivation and original meaning of *IMER*, of which, in this connection, even the reading is doubtful, it denotes a measure of grain, and also an area of land. As a rule, when there is no danger of confusing it with other measures, I read this term as *homer*, but I must not be understood to express any opinion as to its relation to the Hebrew measure of the same name. In transcriptions and for the purposes of this article, I shall write *imêr*, without intending to imply that that is its correct pronunciation. This *imêr* is by far the most commonly named measure of land in our documents. Its subdivisions are indicated by the same signs as those of the *GUR*, or *gur*. Thus

we have *BAR* in no. 610, *PA* in no. 70 and often, *AŠ* in no. 380 and often, *AŠ-u* in no. 671, *AŠ-2u* in no. 81, 1 *BAR* in no. 414, 1 *PA* in no. 393, 1 *AŠ* in no. 623, 1 *AŠ-2u* in no. 623, thus shewing certainly that the same notation was used. The question however still remains unsolved, how many *ḳa* are included in the *imêr*? The addition of 2 *imêr AŠ*, and 1 *BAR*, as 3 *imêr*, in no. 621, appears to shew that a homer had really 60 *ḳa*. That depends, however, upon *AŠ* having 18 *ḳa*, and 1 *BAR* having 42 *ḳa*. In the older system, when the *GUR* had 300 *ḲA*, we should read respectively 30 *ḲA* and 70 *ḲA*, or in all 100 *ḲA*. Either way, as the fractions $\frac{1}{10}$th and $\frac{7}{30}$ths remain the same, the *imêr* must be 'one-third' of the *GUR*, or the *gur*. This addition cannot decide how many *ḳa* the *imêr* contained. Professor Oppert, *Z. A.* 1. p. 189, then aware of only one value in *ḲA* for these fractions, gave the *imêr* as 60 *ḳa*; Dr Peiser, *Skizze*, p. 22, for reasons not clear to me, gave the *imêr* as 'one-fifth' of the *GUR*; which is correct enough, if *GUR* be 300 *ḳa*, and *imêr* be 60 *ḳa*, provided also that *ḳa* is the same.

How on this system it was possible to write 1 *AŠ-2u*, or $\frac{11}{30}$ths, I do not know. This is larger than the *imêr* itself. Possibly the scribe blundered into Babylonian measures in a moment of forgetfulness, or perhaps the *2u* are meant for a division mark. On the tablet the sign looks like *PA-2u*, rather than *AŠ-2u*: but this measure is unknown to me.

The Assyrians also used the *ŠE* as an area of land: see nos. 350, 414, 434, 460. This measure was in use in the old Babylonian times, when 180 *ŠE* equalled one *GIN*. As the *ŠE* here is next below the *ḳa*, we may conjecture the *ḳa* to have taken the place of *GIN* as a land measure: so that 180 *ŠE* went to the *ḳa*. I have already conjectured that a *ḳa* of copper was the same weight as a *GIN* of silver. The conjectures do not stand and fall together, but there is no certainty of either. In the old Babylonian system the money *GIN*, and the area *GIN*, each had 180 *ŠE*, while the *ḲA* had 60 *GIN*. It seems unlikely that in Assyrian land measures the *ḳa* also had 60 *GIN* of 180 *ŠE* each. There is also a possibility that the *ḳa* contained three *ŠE*.

Now this mention of *ŠE*, as a land measure, as well as so many other points in Assyrian methods, suggests an affinity rather with old Babylonian than modern Babylonian affairs and measures. There has already been pointed out a reason, slight though it be, to suppose the Assyrian *imêr* had 300 *ḳa*; see § 87. Then the mention of 110 *ḳa*

would be allowable, the *ŠE* would be in place in a system borrowed from Old Babylonia: the *imêr* would be identical with the old *GUR*, and the prices of corn in Assyria and Babylonia, about one shekel a *GUR*, or *imêr*, would be in complete accord. We must however await further evidence.

271. The texts from which Professor Oppert obtained his scale of relation between the various divisions of the *gur* appear to have been v. R. 67 no. 1 and v. R. 68 no. 1. These texts further shew that the *ŠA-ḪI-A*, or, as I prefer to read it, the *GAR-ZUN*, was a tenth of the *ḲA*. It continually occurs in the later Babylonian times, and was then certainly both a measure of land and of corn. See for the former use, *K. B.* IV. p. 244 f, and Strassmaier's texts.

I think it ought to be identified as the areal correlative of the square *GAR* which figures in the earliest texts as the area of the *SAR*. Then at any rate the *GAN* = 1800 GAR^2 and if the *GUR* = 300 *ḲA* = *GAR-ZUN*, we should have an areal *GAR-ZUN*, different from the GAR^2. As we shall see the *GAN* seems to have been 2 *GUR*, or 6000 *GAR-ZUN*, which would give the GAR^2 as $\frac{10}{3}$ of the *GAR-ZUN*. This *GAR-ZUN* was therefore probably 1 *GAR* long and $\frac{3}{10}$ *GAR*, or 6 *Ú*, or 1 *GI*, wide. At this period however the *GI* should be 10 *Ú* long. In the later times also, the *GAR-ZUN* was one *GAR* long and 1 *GI* wide. This seems a result too close to be a mere coincidence.

This suggests further that the *Ú rabîtu* should have been an areal *Ú*, of length *Ú*, and breadth uniform with the *GAR-ZUN*, of one *GI*, or 6 *Ú*. That would give an area of 6 $Ú^2$. Thus for areal values the *ammatu rabîtu* would be in early times 20 $Ú^2$, later for ordinary areas 6 $Ú^2$, and in the notation of § 280, 7 $Ú^2$.

As the *GAR-ZUN*, as a measure of land, is one-tenth of the *ḲA*, while in the older use of the *ḲA* as a land measure this contained 60 *GIN*, it is clear that the *GAR-ZUN* measured 6 *GIN*. This would further imply that as a measure of land a *GIN* was a strip, 1 *GAR* long and 1 *Ú* wide.

272. When we come to evidence of absolute values we are once more thrown back on the question of the linear values. But we are also furnished with some further interrelations among our units. For the early times Mr Thureau-Dangin has shewn from a large number of cases that the area of the *SAR* was one square *GAR*, or as it was then written *GAR-DU*: see *R. A.* III. p. 146. Hence we can express all the areas for early times in terms of square *GAR*:

and as *GAR* was then with very little doubt 20 *Ú* we can compare with the later areas. The *GAN* then was 1800 *SAR* = 1800 (*GAR-DU*)^2 = 1800 × 400 *Ú*^{2} = 720000 *Ú*^{2}.

273. For the time of Merodach Baladan II., circ. B.C. 720, we can fortunately express the land measures also in square *Ú*. To do this we must first explain a term then used which has been a continual source of perplexity and error. The text of a deed of gift, on a Kudurru stone, of the seventh year of Merodach Baladan II., preserved in the Berlin Museum, was first published by Delitzsch, *B. A. S.* II. p. 258—273, in transcription. Drs Winckler and Peiser contributed some corrections in *Z. A* VII. p. 182 f. They also gave the text in transcription in *K. B.* III. p. 184 f.

It records the gift of a considerable area of land to Bêl-aḫê-erba, the *šaku* of Babylon. There were three plots, the first was 16600 *Ú* long and 1200 *Ú* broad, the second 10000 *Ú* long and 1600 *Ú* broad, the third had two opposite sides 3300 *Ú*, while its other sides were 400 *Ú* and 30 *Ú*: being in fact a trapezium. The first plot is said to be 50 *šê-zêr-DIL-GAN-AŠ ina ištên ammatu rabîtu*, the second 54 (*GUR*), 2 (*PI*), 10 *ḲA* ditto, and the third 2 *GUR* ditto. A fourth plot is given as 3 *GUR* ditto, but the sides are not given.

Now it is this expression, *DIL-GAN-AŠ*, which has been the puzzle. In the first place, the horizontal wedge, before *GAN*, was taken for the preposition *ina*, while in the *GAN-SAR* system it is the numeral denoting $\frac{1}{18}$th of the *GAN*. Hence we see that the $\frac{1}{18}$th of the *GAN* or 100 *SAR*, *AŠ* or 30 *ḲA*, and 1 *ammatu rabîtu* are named as the units employed. It still remains to be seen in what manner they are connected. That the *AŠ* denotes here the 30 *ḲA*, employed to seed $\frac{1}{18}$th of the *GAN*, is proved by its being replaced, in other cases, by $16\frac{2}{3}$, 20, $23\frac{1}{3}$, 25, 30, $33\frac{1}{3}$, 40, 50 and $56\frac{2}{3}$ *ḲA*. Mr Thureau-Dangin believed that the meaning of this expression was that '$\frac{1}{18}$th of the *GAN*, or 100 *SAR*, is reckoned at 30 *ḲA* of seed and is equal to one *ammatu rabîtu*': *R. A.* IV. 19. He was thus conducted to the theory of a *GAR* of 18 *Ú*. He afterwards, *R. A.* IV. p. 27, seems to have had his doubts, but returns to it *R. A.* IV. p. 81, *note* 2. This expression is frequent in the early Babylonian texts discussed by Reisner and Thureau-Dangin, as above, and on the boundary or Kudurru stones, discussed by Belser, *B. A. S.* II. 111 f, and Peiser, *K. B.* IV. p. 56 f, Oppert, *Z. A.* VIII. 360—374, Hilprecht, *Assyriaca*, I. p. 1 f.

As soon as we examine the figures given by the text we see

that there is an error somewhere. The scribe gives the total as 99 (*GUR*), 2 (*PI*), 10 *ḲA*. He makes other errors, for he sometimes inserts, sometimes omits the *GUR*. The use of this antique formula points to the *GUR* having its ancient value of 300 *ḲA*: hence the 2 (*PI*) are 120 *ḲA* and the total is 99 (*GUR*), 130 *ḲA*. The separate items add up to 109 (*GUR*), 130 *ḲA*. Dr Peiser and Dr Winckler thought this was what was intended and that a ten had dropped out of the total. That cannot be all, for the area of the first plot is 19920000 $Ú^2$, while the second is only 16000000 $Ú^2$, though its area is at least 4 *GUR* more. The error must be here, and a ten too many has crept in. Hence we may take it that 44 (*GUR*), 130 *ḲA*, or roughly $44\frac{1}{3}$ *GUR* of land are about 16000000 $Ú^2$. This gives the area of one *GUR* of land as about 360000 square *Ú*. This gives an area of 55 *GUR* for the first plot, which the scribe sets down as only 50 (*GUR*). But the 5 *GUR* mentioned in the last two plots were not *šê-zêr* or 'corn-land,' the first was an orchard or plantation of date palms, the second *taptê*, a class of soil always excluded from *šê-zêr*, and the total land is given as *šê-zêr*. We have only to suppose these 5 *GUR* situated within the first plot and so omitted from the 55 (*GUR*), in order to make the scribe's total correct. We have now to examine the third plot in order to check our results. We have a trapezium of two equal sides each 3300 *Ú*, the others being 400 *Ú* and 30 *Ú*. The perpendicular distance was therefore 3294 *Ú*, roughly, and this multiplied by the mean of the parallel sides, or 215 *Ú*, gives 708210 $Ú^2$, while the scribe's 2 *GUR* would be 720000 $Ú^2$. We do not know how the scribe obtained his figures. If he multiplied 3300 *Ú* by 215 *Ú* directly, as the scribes seem to have done in other cases, he would get 709500 $Ú^2$, and he seems to have been content with this rough estimate as nearly 2 *GUR*. At any rate his error was less than one in sixty: or about 10 *ḲA*. We can hardly suppose a false estimate in such a close approximation.

We may take it for granted that at this period the *GUR* of land contained an area of 360000 $Ú^2$, that is the square of a *nêr* of *Ú*. In itself the form of the result is reassuring. A result that was an odd or non-sexagesimal number of *Ú*, would be difficult to accept. This has an air of verisimilitude. The corresponding *ḲA* would be 1200 $Ú^2$. Let us compare the *GAN-SAR* areas which we have just had. The *GAN* was 1800 GAR^2, or if *GAR* be 20 *Ú*, as on the Senkereh Tablet, the *GAN* is 720000 $Ú^2$ or exactly 2 *GUR*. The

GAR of 18 *Ú* would give the *GAN* as 1·82 *GUR*, a much less likely result. There is every probability that the *Ú* is the same in the two cases, and the notation throughout is very similar. It is very strange that this notation should have survived to so late a date as B.C. 714: I am inclined to think that the Merodach Baladan of this monument must have reigned long before Sargon II. However that may be, here we have a result which awaits confirmation. The *ḲA* would on this scale correspond to exactly 3 *SAR*.

274. A very interesting inscription for our purpose is that on the so-called Caillou de Michaux, first published in Millin's *Monumnts inédits*, I. pl. VIII., IX., and again I. R. 70. It was discussed by Professor Oppert, in his *Doc. Jur.* p. 87 ff; and in several previous articles; also by Boissier, 'Recherches sur quelques contrats babyloniens'; and lastly given in transcription by Dr Peiser, *K. B.* IV. p. 78 f, who also gives a translation. It has been often commented upon, without much elucidation beyond what is due to the above-named writers. The passage, which concerns us chiefly, indicates 20 *šê-zêr* $\frac{1}{18}$ *GAN-AŠ ina ištên ammatu rabîtu* as the area of a plot of land said to be 3 *UŠ* long on the N. and S. sides, and 1 *UŠ*, 50 *GAR* long on the E. and W. sides. Although the scribe does not explicitly say so, we can hardly avoid taking the 3 *UŠ* as 180 *GAR*. For taking the *GAR* as at least 12 *Ú*, *UŠ* cannot be 60 *Ú*, for the 50 *GAR* would then be much greater than 1 *UŠ*. Hence, by all admitted, we are to read 180 *GAR* and 110 *GAR*, giving an area of 19800 GAR^2. This would be 11 *GAN* in the notation of the period: and, assuming the correctness of our former results, that would be 22 *GUR*. The scribe gives only 20, and presumably means 20 *GUR*. Now all the scholars who have attacked this problem assume some error or approximation somewhere. The error which would be the most likely is to suppose that the stone-cutter, the scribe, or his copyist, has given 50 *GAR* instead of 40 *GAR*. If the sides really be 180 *GAR* and 100 *GAR*, the result is 10 *GAN* or 20 *GUR* exactly. This would afford a striking confirmation of our previous results. Moreover this does not raise the question of how many *Ú* went to the *GAR*: and could be used to support the view that 20 *Ú* formed one *GAR* at this time.

It is clear from this and the last example that the initial phrase $\frac{1}{18}$ *GAN-AŠ ina istên ammatu rabîtu* in no way affects the relation between the areas given in *GUR* and square measure. As it varies

in different documents I regard it as a statement of the quality of the land. Now the quality of the land is hardly shewn by the amount of seed it needs, but by the yield it gives. I think therefore that this corresponds rather to the *GIŠ-BAR* which we meet in the Assyrian and later Babylonian documents. We shall return to that later, after taking the later Babylonian calculations into account. Another view deserves quoting. In their comments on the Merodach Baladan stone in *Z. A.* VII. p. 188 f, Dr Peiser and Dr Winckler say, *Es handelt sich um ein Flächenmaas, in dessen Bezeichnung zwei Maassideen zusammengeflossen sind. Die Sache wird so zu verstehen sein, dass in der ältesten Zeit nach einer Flächeneinheit gemessen wurde, welche die Grösse von* 18 *ḳa hatte, d. i. die Grösse eines Landstückes, das zu besäen durchschnittlich etwa* 18 *ḳa erforderte. Diese Flächeneinheit erhielt den Namen '*18 *ḳa stück, d. i. KAN-AŠ vom Hohlmaasse, wie ähnlich unsere Bezeichnungen 'Morgen,' 'Joch,' u. a. m. entstanden sind. Als nun später eine genaure Vermessung sich einführte, wobei der Umfang der Grundstücke auf Grund der Längenmaasse gemessen wurde, scheint eine Ausgleichung in der Weise getroffen werden zu sein, dass die alte Flächeneinheit zu einem Rechtecke gestaltet wurde = einer grossen Elle war; der Compromiss übertrug sich dann auch auf den Namen der Flächeneinheit, (gemessen) mit der Flächeneinheit von* 18 *ḳa, welche berechnet ist auf der Grundlinie einer grossen Elle.*

275. When we come down to much later times the Babylonian texts published by Strassmaier furnish data for another evaluation. Professor Oppert by a skilful application of modern methods of maxima and minima to a series of irregular areas of four unequal sides, arrived at the conclusion that at this period the *ḲA* contained 300 $\acute{U}^2$: see Oppert, *Z. A.* XII. p. 110. A much simpler case is given, Cyrus 188, which is discussed by Dr Demuth, *B. A. S.* III. p. 424 f. There we have mention of a plot of land, 410 $\acute{U}$ long and 30 $\acute{U}$ broad. As the sides are given N. and S., E. and W., it is a rectangular plot, and the area is certainly 12300 $\acute{U}^2$. It is stated to be 1 *PI*, 5 *ḲA* in area. As the *gur* is reckoned throughout the same tablet as 180 *ḲA*, this area must be exactly 41 *ḲA*. Hence, without any approximations at all, the area of the *ḲA* is exactly 300 $\acute{U}^2$. As this result is exactly one quarter of the value in early times, we may suppose one of two things. Either the $\acute{U}$, in the time of Cyrus, was twice as long as in the early Babylonian days, or the *ḲA* was one quarter of the size it had in older times. This latter may have been

the case. The number of *ḲA* in the *gur* had changed: as a measure of land it was now 54000 *Ú*^{2}. If the *Ú* was the same, the old *GAN* was $13\frac{1}{3}$ of these modern *gur*.

276. The chief interest of this evaluation, however, lies in the light which it throws upon the methods of calculation in later times. Before we can safely follow out this method we must realise the relation between the area and its yield. To take one example, in Darius 198 we find the tablet divided into four columns, headed respectively *šê-zêr*, that is, 'corn-land'; *GIŠ-BAR-šu*, 'its *GIŠ-BAR*, or yield'; *ŠE-BAR*, its 'corn' or 'grain'; and *TIŠ*, indicating the 'name' of the tenant. When we examine the entries in the columns, we find in line 4, the following items: Col. I., 1 *gur* 1 *PI* 3 *ḲA*; Col. II., *ina išten* 30; Col. III., 36 *gur* 2 *AŠ*; Col. IV., *Šamaš-uballiṭ, ana nâr šarri*. Taking account of the value of *gur* in *ḲA* we may read this: Col. I., '219 *ḲA*'; Col. II., 'on each one 30'; Col. III., '6570 *ḲA*'; Col. IV., 'Šamaš-uballiṭ, on the King's Canal.' The only intelligible interpretation is, that each *ḲA* of the 219 *ḲA* of corn-land, was reckoned at 30 *ḲA* of produce, and the total yield or rent was 6570 *ḲA*, due from Šamaš-uballiṭ, who lived or farmed these 219 *ḲA*, on the king's canal. This view accounts for the figures given in 14 other entries following, the calculations in each case being exact: when we take account of the traces actually on the tablet. Thus at the beginning of line 7, there is only 1 *gur*, not 3 as seems to be intended by the text in Strassmaier; in line 9, instead of *GAR*, after *BAR*, read 1 *ḲA*; in line 10, the *GIŠ-BAR* is 14; and in line 12, it is 5, not 15. A further check on the calculation is given by the scribe's totals. For all the 15 plots, he gives 15 *gur* 1 *PA* 2 *ḲA šê-zêr ana* 197 *gur AŠ* 4 *ḲA*: or '2750 *ḲA* of corn-land for (the rent of) 34482 *ḲA* of grain.' Beside this, in lines 15 and 16, the scribe has added to his entries the note *elat AŠ-u ḫalḳa*, i.e. 'in addition to 24 *ḲA* perished': and to his total, 2 *PI* 4 *ḲA šê-zêr ana* 4 *gur* 1 *PI* 4 *ḲA GIG-A-ma*: or '76 *ḲA* of corn-land at a rent of 760 *ḲA* of grain gone bad.' At the head of the document, the amount here taken to be rent in grain is said to be *imittum GAR-GA Šamaš GIŠ-BAR ša MU VI*, which no one can deny means 'crop, property of Šamaš, rent of the 6th year.'

Now, on the above readings of this document, the scribe's results are everywhere accurate, except that in line 9, where he makes his result 11136 *ḲA* instead of 11135 *ḲA*, and that in line 17, where he omits half a *ḲA*. From this discussion we deduce several important

results; (i) the *GIŠ-BAR* is the number of *ḲA* of corn which was paid from a *ḲA* of land and varied with the quality of soil, or situation of plot. The plots are arranged according to their productiveness. The *GIŠ-BAR* of the first was 30, it was situated on the king's canal. The second was *ina ZUK*, perhaps 'in the marsh,' but it only yielded a *GIŠ-BAR* of 16; the next was situated at the 'second gate,' and only paid 16. The situation of the next is not given, but it was charged 15. All these were in the city Gilušu. Other plots yielded 17, 14, 13, 5, 16, 10, 11, 14, 7, 10, but their situation being given by certain 'gates,' we have no other clue to their productiveness. Hence a *ḲA* of land might be expected to yield the landlord from 5 to 30 *ḲA* of grain. The yield of the land must have been much greater. With this *GIŠ-BAR* it is natural to compare the amounts given for $\frac{1}{18}$ *GAN-AŠ* in § 272 above. (ii) This document further confirms the accuracy of no less than 17 out of the 30 results in Oppert's table of the *gur* and its subdivisions. Moreover it shews that the notation and scale were precisely the same for land measures and corn measures at this period.

277. Now we are in a position to follow the Babylonian scribe's calculations of areas and control his results. For example, take Cyrus 99, which is stated in line 1 to be *mešḫat šê-zêr ú ŠE-BAR imittum GAR-GA Šamaš ša ZUK Bêl-iḳbi inamdin*, or 'the mensuration of corn-land and grain, corn crop, property of Šamaš, from the marsh, Bêl-iḳbi shall give.' The Marsh seems to be the name of a place. Here we have, in line 54, five headings written down. In order they are, *UŠ*, *ŠAG*, *naphar šê-zêr*, *išten*, *ŠE-BAR*, which we may render, 'longside, broadside, total corn-land, each, corn or grain.' Here then, we have given the length and breadth of the plot, its area, its average assessed yield expressed as *ḲA* of grain per *ḲA* of land, and total assessed corn rent. The scribe had no room for another column, so he takes more than one line for each plot, and adds the name of the tenant, and situation of the plot, and other notes of interest.

The first entry in line 5 gives these figures in order; 550, 455, 4 (*gur*) 4 (*PI*) *AŠ*, 'each 12,' 50 (*gur*) 3 (*PI*) *PA*. The tablet does not state the unit of length used in measuring the sides, but as our first object is to test the result that a *ḲA* of land contained $300\,U^2$, we may assume the lengths expressed as *U*. The area of the first plot then was $250250\,U^2$, or on our calculation 834 *ḲA*. The scribe gives 4 (*gur*) 4 (*PI*) *AŠ* or 882 *ḲA*, or 43 *ḲA* too much. In fact

he calculated the *ḲA* as 283 *Ú*². Taking 882 *ḲA*, his figure for the area, at 12 *ḲA* of corn per *ḲA* of land, we have 58 *gur* 4 *PI*, the scribe has 50 *gur* 3 *PI*, *PA*, or 8 *gur* 24 *ḲA* too little. If we take the correct area on our calculation, we get 55 *gur* 108 *ḲA*. In fact, in order to yield his final result, he must have taken his area to be 760 *ḲA*. Neither of the sides nor the area has any prime factors in common with 760, except of course 2 and 5. He adds a note to this area, *ina libbi* 1 *gur ištên* 3 *šê-zêr raḳḳa*, which seems to mean; 'in each *gur*, 3 (*ḲA*) of corn-land are empty.' But taking the maximum rough estimate of 60 *gur*, that would mean only 1 *gur* empty. We want over 8 times as much to give his total correctly from his own figures. We want 4 times as much for a proper area, in order to reduce the total to what he gives. The scribe then adds the name of the tenant. The next plot was 300 long and 230 wide; assuming the unit of length to be *Ú*, the area should have been exactly 230 *ḲA*: the scribe has 246 *ḲA*, or an area for the *ḲA* of 280 *Ú*². The yield in this case is 5 *ḲA* per *ḲA*, which with his figures should give him 6 *gur* 150 *ḲA*. He gives exactly 7 *ḲA*. Here then he put on 16 *ḲA* to the area, and then added 30 *ḲA* of corn to the result on that supposition. Practically he added 80 *ḲA* to the corn rent. He makes no note on this entry, but gives the name of the same tenant as for the last, and a situation at the 'second gate.' In the next entry the scribe gives a length of 600, and a breadth of 170: he should therefore have made the area 340 *ḲA*: he puts down 2 *gur* 6 *ḲA*, or 366 *ḲA*. The rent here is 12 *ḲA*, which on the correct area would give 22 *gur* 120 *ḲA*, or on his own area 24 *gur* 72 *ḲA*; he gives the result as 24 *gur* 36 *ḲA*. Hence he appears to reckon the *ḲA* as 278 *Ú*², or adds 26 *ḲA* to the proper area and takes back 36 *ḲA* from the proper rent on his own calculation. He adds the name of the tenant but makes no note on his entry. His next entry merely has 1 *gur ŠE-BAR*, and the name of the same tenant as the last. No area, rate, or dimensions are given for this plot. The next entry is a little uncertain, the length is 170 and the breadth, perhaps 80, certainly under 100. The scribe gives the area as 1 *PA*, or 48 *ḲA*. On the assumption that 80 is correct, we should get 45 *ḲA*; on the scribe's usual reckoning of about 280 *Ú*² to the *ḲA*, 48 *ḲA* is about right. The yield per *ḲA* was to be 8 *ḲA* which with his figures would give 2 *gur* 24 *ḲA*: he gives 2 *gur* 30 *ḲA*. When the scribe comes to add up his results he has the amounts, 50 *gur* 120 *ḲA*, 7 *gur*, 24 *gur* 36 *ḲA*, 1 *gur* and

2 *gur* 30 *ḲA*: or 85 *gur* 6 *ḲA*. He gives 70 *gur* exactly. It is of course possible that the published text gives the figures wrongly. The sides may not have been measured properly, but, with the corresponding areas, copied from an old schedule; but that does not account for the rents being set down wrongly and added up wrongly. Even if we assume that at this period the *ḲA* was reckoned as 280 $Ú^2$ roughly, while we may get his areas more closely, we shall still find his rents in error. If he could not be trusted to multiply correctly by 5, 8 and 12, he can hardly be relied upon for calculating the areas. I imagine the case was this: he set down the lengths, as much for the sake of identification of the plot, and to prevent its being encroached upon, as for calculation of area; then he added the area, perhaps from memory of what it had been reckoned before, or from an old calculation; then he stated the usual rate at which it had been let; and finally, exercised his own judgment, or came to an understanding with the tenant, as to the total amount that should be set down as rent. On any view he let these plots at least 15 *gur* too cheap. Of course rents may have gone down, and he may have been obliged to give considerable reductions on the old customary rent. All I contend for here is that, while the actual figures shew considerable freedom in dealing with them, the results bear out my view that a *ḲA* of land was reckoned at about 300 $Ú^2$.

278. A similar text will be found in Cyrus 225, where the same heading occurs: *mešḫat šê-zêr ŠE-BAR imittum ša Bêl-iḳâšu GAR-GA Šamaš.* Here there are six columns, headed, *UŠ*, *ŠAG*, *šê-zêr*, *BAR-šú*, *ŠE-MAŠ*, *TIŠ*, that is to say, 'longside, broadside, corn-land, its rate, grain, name.' At least 20 plots are reckoned out; the first not having the details filled in, only the amount of grain and the tenant's name. Here, to take but one example, a plot 325 long by 215 wide, which on our scale would be 232 *ḲA*, or 233 *ḲA* at most, is put down as 246 *ḲA*, or at the scale of 284 $Ú^2$ to the *ḲA*. Then with a rate of 12 *ḲA*, the scribe gets 16 *gur* 2 *PI* or 2952 *ḲA*, which is exact for his area: see line 21. Lower down, in line 30, he calculates a plot, 400 long and 150 wide, as 2 *gur*, which is 166 $Ú^2$ to the *ḲA*, but at a rate of 7 *ḲA*, he makes the rent 14 *gur* 90 *ḲA* instead of exactly 14 *gur*. In the next line he reckons a plot 50 long by 140 wide as 126 *ḲA*, when on our scale it should be 163 *ḲA*, on the scale of 280 $Ú^2$ to the *ḲA*, clearly 175 *ḲA*. At a rate of 3 *KA* he gives the result as 360 *ḲA*, in place of 378 *ḲA*. I do not think one of his results is correct, unless of course the

published figures misrepresent his problem. Sometimes he calculates in excess, sometimes in defect. Again, I believe, the scribe merely attempts to fix a 'fair' rent: taking into account current prices and possibly other circumstances not indicated. In another text, Nabonidus 116, the scribe makes his areas all too small: but calculates their rents accurately enough. Thus he made a plot, 949 *Ú* long and 40 *Ú* wide, contain 1253 *GAR-ZUN*, instead of $1265\frac{1}{3}$ *GAR-ZUN*. His result does not contain either 949 or 40 as a factor. In fact it is hard to see how he obtained his figures at all, but as they are sometimes in excess, sometimes in defect, and as he rarely gives the correct rents from his own areas, we may safely regard them as approximations rather than accurate estimates. They all confirm our scale of 300 $Ú^2$ to the *ḲA*, as against 1200 $Ú^2$ for the earlier times. A similar text to these was Cyrus 226, but it is too imperfect to be of much use. Also calculations of area closely agreeing with *ḲA* = 300 $Ú^2$ will be found in Nbd. 116, 178, Nbkd. 453.

279. In a note on *L'arpentage des quadrilatères chaldéens*, *Z. A.* XII. p. 110, *note* 1, Professor Oppert, who calls the *gur*, a *cor*, the *pi*, an *amphore*, and *ḲA* a *cab*, states that at Sippara, the *cor* was 50000, the *amphore* 1000 *aunes carrées*. He says that Eisenlohr, after Revillout, had given this result. He regards the fact as undeniable and refers to our texts in support of it. Now Cyrus 99, 225, 226 do come from Sippara. The true area of the first plot is 250250 $Ú^2$ and as the scribe gives the area 50 *gur* 120 *ḲA* we shall get on this scale 2503000 $Ú^2$ at least, assuming that *Ú* = *aune*. The second plot has a proper area of 69000 $Ú^2$, so on this '*système sipparénien*' we ought to have 1 *gur* 19 *PI*: the scribe gave 1 *gur* 1 *PI AŠ-2u*. The third area is 10200 $Ú^2$. On this new system that would be 2 *gur* 2 *PI*, but the scribe has 2 *gur* 6 *ḲA*. It seems unnecessary to examine further. This system would make the *gur* = 50 *PI*. Perhaps the *pi* should be 10000 $Ú^2$ which makes the *ḲA* as Oppert has it equal to $277\frac{7}{9}$ $Ú^2$. This would make the first result still more unlike the scribe's; and though the second result would be close enough, the third would be one *ḲA* out. Had also the Sippara scribes a separate method of multiplying by 5, 8, 12? Professor Oppert does not suggest that they changed the number of *ḲA* in their *gur*. I believe this *système sipparénien* is purely imaginary.

280. Much more to the purpose was Dr Oppert's discovery of the separate and distinct system in use for the calculation of areas given in *GAR*, *Ú*, and *ŠÚ-SI*. In this system the *GAR*, as usual,

is 2 *GI*: but the *GI* has here 7 *Ú*, and the *Ú* has 24 *ŠÚ-SI* or *ubânê*. The peculiarity of this system is that the area was considered to be uniformly 1 *GI* wide. Hence only the GI^2 was a 'square measure.' We had better use the term 'areal' to denote this unusual measure. Thus an 'areal *GAR*,' was 1 *GAR* long, 1 *GI* wide; therefore 14 *Ú* long and 7 *Ú* wide.

Table of Oppert's Areal measure expressed in $Ú^2$.

Areal GAR = 2 *areal GI* = 14 *areal Ú* = 336 *areal ŠÚ-SI* = 98 $Ú^2$.
1 *areal GI* = 7 *areal Ú* = 168 *areal* „ = 49 „
1 *areal Ú* = 24 *areal* „ = 7 „
1 *areal* „ = $\frac{7}{24}$ „

As this style of estimating areas is so unfamiliar, we may note that the scale of areals is precisely the same as the linear scale: viz. 1 *GAR* = 2 *GI*, 1 *GI* = 7 *Ú*, 1 *Ú* = 24 *ŠÚ-SI*; both as areals and linear measures. Its connection with square measures may be presented thus: 1 GAR^2 = 2 *areal GAR*, 1 GI^2 = 1 *areal GI*, 1 $Ú^2$ = $\frac{1}{7}$ *areal Ú* = $\frac{24}{7}$ *areal ŠÚ-SI*, 1 $(ŠÚ\text{-}SI)^2$ = $\frac{1}{168}$ *areal ŠÚ-SI*.

In many calculations, where this system was used, we find the same approximative methods followed. For example, the scribe, in Camb. 403, gives the sides of a rectangle as 1 *GAR* 6 *Ú* and 1 *GAR* 17 *ŠÚ-SI*, that is 410 *ŠÚ-SI* by 353 *ŠÚ-SI*. The area therefore was 169440 $(ŠÚ\text{-}SI)^2$ or 1009 *areal* $(ŠÚ\text{-}SI)$ with remainder of 28 $(ŠÚ\text{-}SI)^2$. This was then in areals 6 *GI*, 1 *ŠÚ-SI*. The scribe gives only 6 *GI-MEŠ*.

It seems not unlikely that in working the area out, the scribe availed himself of that practical rule which appears in older arithmetic books under the head of 'Practice.' Denoting 'reeds' or *GI*, by *G*, 'cubits' by *U*, and *ŠÚ-SI* by *Š*, for clearness, we may set down the calculation thus:—

G	*U*	*Š*		*G*	*U*	*Š*
2	6	0	, to multiply by	2	0	17.
		2				
5	5	0				
	1	$10\frac{4}{14}$				
		$11\frac{6}{14}$				
		$2\frac{12}{14}$				
6	0	$0\frac{4}{7}$	Answer 6 *GI-MEŠ*.			

Š
12 = $\frac{1}{2}$ *Ú* = $\frac{1}{14}$ top line =
4 = $\frac{1}{3}$ last line =
1 = $\frac{1}{4}$ „ „ =
17 =

Similar calculations will be found in Nbn. 1128, Nbk. 156, 164, 328, Cyrus 128, 345, Camb. 349, 432.

In Cyrus 128, which Dr Peiser, *Aus dem Bab. Rechtsleben*, II. p. 32, regards as a striking confirmation of Dr Oppert's views, we have $33\frac{2}{3}$ *Ú* and $33\frac{1}{3}$ *Ú* as the lengths of two, presumably parallel, sides; the other sides being each $13\frac{1}{3}$ *Ú*. The accurate area of this trapezium would be $446\,Ú^2$, or 9 areal *GI-MEŠ* and 17 areal *ŠU-SI*. The scribe gives the area as 1 *GI-MEŠ* 2 *ḳatâti*; which Dr Peiser reads $8\frac{2}{3}$ *GI-MEŠ*. The *ḳâtâtu*, or perhaps *ḳâtu*, was therefore $\frac{1}{3}$ *Ú*, or 8 *ubânê*. And then *ḳâtâ-MEŠ* would be the areal of *ḳâtu*, or a surface, 8 *ŠU-SI* long and 1 *GI wide*, one-third of the areal *Ú*. The scribe's calculation seems to have been made with the figures 33 and 13, neglecting the fractions. He thus obtained the area $429\,Ú^2$: and at $49\,Ú^2$ to the *GI-MEŠ*, he would get 8 *GI-MEŠ* and $37\,Ú^2$, which is rather over $\frac{2}{3}$rds. In the case of areas of four unequal sides the scribe's calculations are very rough. The maximum area was not always taken. Nor can we obtain his results by multiplying together the arithmetic means of the opposite sides. I still incline to the view that the scribes either possessed some sort of ready reckoner, a table of calculated results, or fell back on previous estimates, founded on experimental results, or on a knowledge of the way in which the areas had been derived from others more readily calculated. The division of inheritances may have resulted in each plot having a well known and probably long recorded area. The above method was first understood by Professor Oppert, pointed out by him in various periodicals and finally fully explained in his *Mémoires divers*, I. p. 17. Compare his articles, *R. A.* I. p. 153 f.

The Khorsabad measures regarded as areas.

281. The 'measure' of Sargon II.'s city of Khorsabad has already been shewn to be $16261\frac{1}{2}$ *GAR*, and 2 *Ú*. The three results which I have called Khorsabad A, B, and C, depend on the three different values of *GAR* in terms of *Ú*, which are known to have been in use at different periods. The dimensions given by Botta and Flandin make the area of the ruins to be 1750 metres long by 1645 metres broad or an area of 2878750 square metres. Leaving on one side for the moment the 2 *Ú*, this gives a *GAR* of 177·03 square metres. If this were a square *GAR*, its linear side would be 13·3 metres, giving a *GI* or 'reed' of 6·6 metres. This would give

a value for $\acute{U}$ of at least ·66 metres, some 25 inches. This would give $\acute{U}$ the value of $\frac{2}{3}$ of Dr Lehmann's *Doppelelle* of 990 millimetres. On the supposition of a reed of $6\acute{U}$ we should have the value of $\acute{U}$ at least 1 metre, perhaps Dr Lehmann's *erhöhte Doppelelle* of from 999 to 1003 millimetres.

There is however small likelihood that by *GAR* was meant a 'square *GAR*.' We must reduce the area to $\acute{U}$ and then we obtain from Khorsabad A, a value for $\acute{U}$ of 14·75 square metres, from Khorsabad B, a value of 12·64 square metres, and from Khorsabad C, a value of 8·851 square metres. This $\acute{U}$ can only be one of the areal $\acute{U}$. From the first, we deduce $\acute{U}^2 = 2{\cdot}46$; from the second, $\acute{U}^2 = 1{\cdot}8$; from the third, $\acute{U}^2 = {\cdot}8851$ square metres. These are on the assumption that the areal in each case was a *GI* wide. The first two make $\acute{U}$ at least a metre long, the third gives ·94 metres. Of course these may be *Doppelelle*: but who is prepared to accept them seriously?

There is yet a hazardous assumption to make. The areal may have been a *GAR* wide. I know of no other example of this: but if it were in use here we should have values for $\acute{U}^2$ clearly of 1·23, ·9, and ·4425 square metres. From the first result we have a linear value for $\acute{U}$ of over 1 metre, from the second of at least ·9 metres, both of course possible as the *Doppelelle*, and from the last a value of ·66 metres, as above.

Even if we were so bold as to consider the *GAR* in this inscription to be the *GAR-ZUN* of $120\acute{U}^2$ or $30\acute{U}^2$, we should obtain $\acute{U}^2 = 1{\cdot}5$ or 5·9 square metres. The former would conduct us to another *Doppelelle*, rather longer than before, the latter to an absurd length of over two metres.

Hence the treatment of the Khorsabad measures, as giving the area of the city, produces much the same results, a value for $\acute{U}$ of over 39 inches, or one equally unlikely for a cubit, of some 26 inches.

So far as I am aware, this is the only inscriptional evidence we have for finding the length of $\acute{U}$. Bad as Dr Delitzsch's reading of the figures may seem to Dr Oppert, it leads us to the only admissible 'cubit' value for $\acute{U}$, viz. 417 millimetres. When I call this the only admissible 'cubit' value, I mean that until solid evidence is produced to shew that some dimension of a building or monument inscriptionally given in cubits or multiples of a cubit has been accurately measured, and demonstrates the length to be something different,

this remains the value which has most evidence in its favour. I freely admit that the reading of the figures is open to question, that the value deduced from the *ašlu* is uncertain, and that the Gudea rule may not have any bearing on the question. But these are three independent and suggestive evidences, and though the worth of each is slight, its value is 'cubed' or 'tripled' by the coexistence of the others. Pending further evidence, I shall give my vote in favour of a value for *Ú* of 417 millimetres in the Sargonide period.

The ammât gagari.

282. A very large measure of land, the *ammât gagari*, is mentioned in the East India House Inscription of Nebuchadnezzar. There in Col. VI. 25 we are told that the area, *itâti*, of Babylon was 4000 *ammât gagari*. Taking this to be the area included within the outer wall, Imgur-Bêl, whose length we have seen, § 260, to be 120 *ašlu*; on each side, therefore, 30 *ašlu*; we have the area as $900 \times (1800\,Ú)^2$. This gives the *ammât gagari* as equal to $729000\,Ú^2$: i.e. 8100 *GUR*. Nebuchadnezzar, Col. VIII. 45, further gives the *itâti* of the inner wall, Nimitti-Bêl, as 490 *ammât gagari*; each side of this square enclosure was therefore $18900\,Ú$. Professor Oppert deals with this area in *L'étalon*, II. p. 441 f. He gives the rule that the addition of *gagar* to a number indicates its multiplication by 360. So he makes 4000 *ammât gagari* to mean a square of $1200\,Ú$. Hence he obtains for the *Ú* of land, $\frac{1}{100}$ of the *stade carré*. That should surely imply that *Ú* was a tenth of the *stade*: or about 18 metres. But perhaps Oppert considered that the *Ú*, as a land measure, was not a square *Ú*, or 'cubit,' or *empan*. His area for the *ammât gagari* would be 10000 *SAR*. As the later *gur* contained 180 *KA*, each of an area of $300\,Ú^2$, the area of the *ammât gagari* would be 540000 *gur*.

The above conclusions are based on the assumption that *ammât gagari* denotes an area. But *itâti* literally means 'sides' and we may consider the $4000\,Ú$ *gagari* to be equal in length to 4×120 *ašlu*, which would give the *ašlu* as $8\frac{1}{3}\,Ú$ *gagari*, or since we determined *ašlu* to be $1800\,Ú$, we should have $Ú\,gagari = 216\,Ú$. Delitzsch, *H. W. B.* p. 154 b, considers the *itâti* to be a border or strip of land outside the wall. Without knowing the breadth of the strip, it is not easy to conjecture the area. If we take it as 20 *ašlu* wide and regard *ammât gagari* as an area we shall find the value of this area to be $\frac{14}{5}$ of a square *ašlu*: which would not agree with the other result.

283. Professor Oppert has, from time to time, made capital out of the supposed values given by the inscription on the *Tablette d'argent* brought from Khorsabad. There, as he reads the inscription, Sargon II. states the area of the Palace at Khorsabad to be 10 *ammâtu rabîtu*. This area is given by Flandin's measurements to have been about 961 *ares*. By some very plausible corrections to this area, Professor Oppert shews that the *grand U* or *aroure* might be, in the time of Sargon II., a square of 360 *empans* or $10\frac{1}{2}$ *cannes* each side. He is constrained to admit that was not its area in earlier times. From the expression in the Caillou de Michaux, and elsewhere, *DIL-GAN-AŠ* 1 *Ú rabîtu*, he concludes that *trois hectes* were equal a *grand U*. As the *hecte* was 18 *ḲA* and the *ḲA* of land contained 300 *aunes carrées*, the *grand U* would be 5400 *aunes carrées*. This gives the area above mentioned as 972 *ares*: which, with regard to the difficulty of estimating the measures of such ruins, would be within the limits of permissible error. But unfortunately for this notion of the meaning of the expression *DIL-GAN-AŠ* 1 *Ú rabîtu*, we have seen that *AŠ* is not constant. We should have to admit a great variety of *grands U*. Besides, the reading of the *Tablette d'argent* is certainly wrong. Lyon, *Sargon*, p. 82, shews that the 10 *ammât rabîtu* cannot be the area of the palace. The use of *ammâtu rabîtu*, measuring the width of a ditch, or the breadth of a highway, excludes the idea of an areal measure altogether. Hence the whole contention breaks down. Oppert's *aroure* is not thereby disproved, nor the use of the term *ammâtu rabîtu* to express an areal, but no data are afforded by this inscription for its determination. Mr Thureau-Dangin, also taking the above expression to imply that $\frac{1}{18}$ of the *GAN* was equivalent in area to one *ammat rabit*, is compelled to take the *Ú* as a cubit and the *GAR* as 18*Ú* of ·54 metres each. He however thinks it possible that the *GAR* should be 20 *pieds*; but evidently had his doubts about the passage: see *R. A.* IV. p. 80 ff.

The use of the term still remains doubtful to me. Professor Hommel, *B. D.* p. 218 b, says that the great cubit of the Babylonians' *ammâtu rabîtu* measured 996 millimetres.

284. The Hebrew measures of land area were undoubtedly derived from the amount of seed which was regarded as sufficient to sow them. Thus De Saigey, *Traité de Métrologie*, p. 24, gives a table containing a *beth-roba*, a *beth-cabum*, *beth-seah*, &c., being areas sown by a *log*, a *cab*, a *seah*, &c., of grain. His absolute values are

founded on the assumption that the *beth-seah* was a square of about 40 *coudées naturelles*. He takes the cubit as about 450 millimetres, to which Oppert, *L'étalon*, II. p. 462, objects that the natural cubit is never less than 500 millimetres. Also Aruch, according to Oppert, *L'étalon*, II. p. 462, states that the *beth-seah* was not 40 but 50 *garmidi*.

The absolute values of Hebrew areas do not concern us here, but the underlying notions of area are deserving of notice. In the Assyrian documents relating to the sale of land, we find a closely allied notation. Thus a plot of one homer of land is expressed as *bîtu* 1 *imêr eḳli*. Here the *bîtu*, as already pointed out by Oppert, *L'étalon*, II. p. 462, is certainly the representative of the Hebrew *beth*. The recognition of this fact would have saved Dr Bezold from calling such sales of fields, 'sales of houses.'

In this Assyrian usage the *bîtu* is usually followed by a numeral, expressing the number of homers. Thus we have *bîtu* 12 *imêr*, in no. 58; *bîtu* 22 *imêr PA*, in no. 70; *bîtu* 30 *imêr PA*, in no. 70, &c. Whether this *bîtu* had, originally, any connection with *banû*, or with 'house,' seems to me open to question. That it was read *bîtu*, or perhaps better *bît*, seems clear from no. 473, 3, when it appears to be replaced by *bi-it*. The parallel from Hebrew *beth* supports this reading. It came however to be used in the sense of 'parcel.' Thus we have, in no. 619, 14, *bîtu* 11 *napšâti*, 'a lot of eleven souls': and, in no. 362, 4, *bîtu* 2400 *iṣu bêlit*, 'a parcel or lot of 2400 *bêlit* plants.' I regard it as less likely that we have here a form of the preposition *bid*, meaning 'with.'

The measures of capacity.

285. The measures of capacity were, as we have seen, intimately connected with land measures. But I think they were originally, in every case, measures of capacity, and not land measures. Thus in all probability the *GAN-SAR* scheme for land is earlier than the *GUR-ḲA* scheme, though traces of the latter already appear very early. In the signs used to denote the measures we cannot fail to remark a certain uniformity of notation and of scale. Thus we have *GAN* = 1800 *SAR*, *SAR* = 60 *GIN*, *GIN* = 180 *ŠE*, as the early land measures; *GUR* = 300 *ḲA*, *ḲA* = 60 *GIN* (Query, was *GIN* also = 180 *ŠE* in this measure?), the early volume measure and applied land measure; and the weight scheme *GUN* = 60 *MANA*, *MANA*

= 60 *GIN*, *GIN* = 180 *ŠE*. There seems a strong suggestion that the *ŠE* was the basis all through, but in what sense? *ŠE* is the ideogram of 'grain.' The weight of 180 grains may have given the *GIN* weight. If so there is every probability that the *GIN* is some measure of 180 grains; certainly, then, a measure of capacity. Now one of the values of *GIN* is *ḳuddu*, which Professor Hommel, *B. D.* p. 219 b, regards as equivalent to the Arabic *ḳadaḥ*, and the Egyptian *ḳed*, and which on all accounts should mean a measure, probably a wickerwork, or perhaps a wooden, corn measure. Now the *ḲA* is 60 *GIN*. We shall see that there is some probability that a *ḲA* of copper is a weight of copper equal to the weight of a shekel of silver and probably worth a *ḲA* measure of grain. Hence a mina of copper would be worth about 60 *ḲA* of grain, and a *gur* of grain would be worth 3 minas of copper or 180 shekels of copper. But silver was worth about 180 times copper, so that a *gur* of corn would be worth about a shekel of silver. We shall see this was the case in the later times; see chapter on Prices. In the older times when the *ḲA* may have been rather larger, it seems that 60 *ḲA* of grain or a homer (?) was worth a *ḲA* of copper: but then the price of a homer was one shekel.

It certainly looks to me as if the early system started from the homer of grain, which would also sow a homer of land, and was an 'ass load' of grain, and also would fill a pot or measure called perhaps 'an ass'; cf. *ḳuddinu*, a mule (?), with *ḳuddu* above. This amount of grain was worth a shekel of silver. So a *ŠE* of silver, or grain, would purchase many grains of corn, how many depends on how many *ḲA* went to the homer and how many *ŠE* to the *GIN* of corn. We still lack most of the data necessary to complete this correlation of systems, but we now know what to look out for.

286. We must here consider the names of the measures of capacity. We had to use them, as signs, already, in the *GUR-ḲA* system of land measures.

The *GUR* is always written ideographically in stating amounts. That it really stands for *gurru* is deduced with certainty from K 4338 Col. VI. 15—22 where boats of 5, 10, 15, 20, 30, 40, 50, 60 *GUR* are named as *elip ḫamilti gurri*, i.e. 'a ship of five *gurru* burden,' &c. &c. The passage of the Babylonian *g* into *k* is common and this may really be for *ḳurru*. The name is therefore suggestive of the Hebrew כֹּר, *kor*, of which the Greek rendering is κόρος. Tallqvist, *Sp. Nbn.* p. 62, also compares جَرَّة, 'a pitcher,' &c. The γόμορ, which

the LXX. give as the rendering of חֹמֶר in Ezk. xlv. 11 f, seems to me quite a fair representation of *gurru*, comparing the many interchanges of ו, or ω, with μ. On the other hand this may be a Greek reading of the omer, or עֹמֶר.

This measure *gur* does not occur in our documents. The *imeru*, if that is the way that we are to read the ideogram *ANŠU*, Brünnow's no. 4981, seems to take its place. I am not prepared to assert the equivalence of this *imeru* with the *gur*, nor with the Hebrew homer, חֹמֶר, though the suggestion of resemblance is obvious. We lack the data for determining its value. Oppert regards the case, already noted in § 269, as decisive for a homer of 60 *ḲA*, at least for land measure. That would rather suggest a homer of 100 *ḲA*. In either case we should have a homer one-third of a *gur*. The presumption, of course, is very strong in favour of the homer, as a measure of capacity, being also one-third of the *GUR*.

If the reading *imeru* for this measure is really correct, we may perhaps consider it was originally an 'ass load.' Dr Peiser, *Skizze*, p. 22, conjectures that the *gur* was also originally a 'camel load.' The reason for his conclusion that the homer was one-fifth of the *gur*, I do not know. Of course if it was 60 *ḲA*, when the *gur* was 300 *ḲA*, there we have it. Further there always was a certain distinctness about one-fifth of the *GUR*, indicated in the Babylonian scheme by the separate sign *PI*. This *PI* measure was clearly the 'pot' from which the other subdivisions of the *GUR* were derived as its half, its fifth, two-fifths, &c. Hence there is every reason to regard the fifth of the *GUR* as a separate unit, and originally a 'pot': see the early signs in Thureau-Dangin, *L'écriture cunéiforme*, p. 83 f and *B. A. S.* III. p. 589.

This however does not shew either that *imeru* was the proper name of the 'pot,' which held 'one-fifth of the *GUR*,' or that it was the same word as *imeru*, 'an ass.' The sign *IM*, as Mr Thureau-Dangin has shewn, *J. A.* '95, vol. I. p. 385, was originally the picture of a pot, and the sign *PI* has much in common graphically and phonetically with *IM*. This *imeru* may be connected with *amâru*, 'to fill,' *ammar*, 'the contents of a vessel,' *ummaru*, 'a pot,' &c. I am not satisfied that in the name of Damascus, Ša-imerêšu, the *imeru* is necessarily an 'ass.'

Closely connected in value with this *PI* in later times was the *mašiḫu*, literally the 'measurer,' which very generally contained 1 *PI* or 36 *ḲA*. But it was not a perfectly fixed quantity. We find that

individuals stipulated that payments should be made after their own *mašiḫu*, e.g. Nbkd. 347, 8: shewing that probably there was some doubt as to its exact content. In some cases we read of a 'royal' *mašiḫu*, not necessarily implying a different measure. In the time of Artaxerxes I. the *mašiḫu* contained 1 *PI* 1 *ḲA* or 37 *ḲA*: see Hilprecht, *B. E. P.* IX. p. 33. This measure seems to have been a basket of some kind, as it had the determinative *GIŠ*. Oppert, *L'étalon*, II. p. 457, suggested that *PI* may have been read *uznu*, 'oreille,' 'amphore.' The name of this sign, *GELTAN*, is not likely to refer to its use as a measure.

287. As an early measure of capacity, in the period of Sargon I., we may note a *DUK*, or *ḳarpatu*, which appears to be equal to 3 *NIGIN*. Mr Thureau-Dangin, who mentions these measures, *R. A.* IV. p. 83, thinks he has evidence to shew that this *ḳarpatu*, or 'pot,' contained 20 *ḲA*. In the very numerous tablets recording offerings of food and drink to the gods, *ḳarpat* is continually used as if a definite measure of capacity, but there is no clue to its content.

The scale of these measures of capacity has been incidentally discussed already, and little need be added here; see § 268. It is annoying to be unable to state how the signs denoting subdivisions of the *GUR* were read in Assyrian. That they had separate names I believe is implied by the fragment K 10191, see Catalogue p. 1071, which evidently had for its subject a list of these signs and their explanations or names. Unfortunately the Assyrian or explanatory column is almost entirely destroyed. Thus *AŠ-2u* has a sign like *SAR*; *AŠ-2u* + 2½ *ḲA* was explained by a word, of which the only trace left looks like *ŠE*; 1 *PI-AŠ-2u* seems to have begun with *MUN*; 1 *PI-AŠ-u* with *SI-BIT* (?); 2 *PI-AŠ-2u* with *kar*. These hints may be clear to some of my readers, I have been unable to make anything of them.

Professor Oppert, *L'étalon*, II. p. 457, hazarded the opinion that the *PI* was the same as the *artaba* of the Persians. That would be a welcome hint, for we can determine the *artaba* approximately from the statement of Herodotus, I. 192, ἡ δὲ ἀρτάβη μέτρον ἐὸν Περσικὸν χωρέει μεδίμνου Ἀττικῆς πλέον χοίνιξι τρισὶ Ἀττικῇσι, and as we know the relation of the *PI* to the other measures we could determine their absolute values. But there is no proof that *PI* = *artaba*. In Camb. 316, unfortunately a damaged text, we find quantities of grain given in *ar-ṭa-bi*. In the same text there seems to be mention of

some *PI*, but the place is too damaged to say for certain that the amounts given in *PI* and *arṭabi* are equivalent: or even how many *PI* there were. At first sight it seems that 424 *arṭabi* might have been given as 84 *GUR* 4 *PI*, but the 84 was certainly not written, and what looks like *GUR* may be the sign *ER*, or even *PIN*. Still we may now hope for an equation from cuneiform sources. The *arṭabi* was in use in Babylonia, and in the commercial documents of the Persian times we shall probably find a solution of the question.

Professor Hilprecht, *B. E. P.* IX. p. 24, considers that in the time of Artaxerxes I. there was a *seah* in use which contained 25 to 26 *gur*. This was called in the Aramaic docket a סאה ארקא, or 'common seah,' so called because in common use in the 'country,' and in distinction from the 'royal' measure. Now the ordinary Phoenician or Hebrew *seah* seems to have been the 30th part of the homer and to have contained about 12 litres. The discrepancy seems enormous. For my part, I do not think the Aramaic states the amount of grain, but only the type of measure on which it was reckoned: i.e. according to the 'country' measure. It may also refer to the area of land for which it was designed as seed.

288. The determination of Persian weights and measures naturally had a great fascination for Professor Oppert, who had done so much for the Persian language. Further, the history of cuneiform discoveries gave every promise that help would be found in that direction. No one need be surprised therefore that *L'étalon* contains nearly as much about Persian as about Assyrian measures. As Oppert says, the inscriptions speak chiefly of the *šê*, which he believes to be the Hebrew *hin*; the *ḲA*, which he also reads *GID*, *STA*, and thinks to be the *bath*, or *épha* (Lenormant had made the same identification); and the *IMER*, which he takes to be the *homer* and *kor*. These assumptions will only be tolerable if they can be shewn to conduct to reasonable results. The Rabbis had an idea, which Oppert calls *très-juste*, that the *bath*, or *épha*, was the cube of a half-cubit. Oppert regards the prominence thus given to the half-cubit, as confirming the value of *Ú* as a half-cubit. He then argues from the great molten sea of Solomon, which according to Josephus, *Ant.* VIII. 3, 5, was a hemisphere of 5 cubits diameter. This held 2000 baths, according to 1 Kings vii. 26, but 3000 baths according to 2 Chronicles iv. 5. This gave Oppert 36200 litres for 2000 *baths*, or about 18 litres per *bath*. The cube of his

Assyrian half-cubit, 274 millimetres, gave a bath of 20 litres, and the cube of his Babylonian half-cubit, some 18 litres. '*Voilà donc l'unité des mesures de capacité.*' He then quotes the Hebrew scale of gradation, and works out a table on a modified sexagesimal arrangement, the *bath* being 60 *logs*, or 20 *cabs*, 6 *hin*, then the *artaba* being 3 *baths*, the *homer* 4 *artabas*, and the *gur* or *achané* 10 *homers*. This table has now only an historic interest.

The *bath* or *kor*, as Oppert says, among the Rabbis depends on Ezekiel xlv. 10 ff. The LXX. express the *kor* as γόμορ, but in Isaiah v. 10 identify it with 6 *artabas*. It will be observed that Oppert's names are not Assyrian terms at all. He thinks that the Assyrian *homer* had 12 *baths*. He quotes Herodotus I. 192 as to the value of the *artaba*, which Oppert makes about 3 *épha*. Then he says, '*il existe au surplus dans les textes cunéiformes une mesure PI qui, selon nous, équivaut à l'artaba. Dans un petit contrat conservé au Louvre, daté de la dixième année de Darius, on parle en effet de* 1 *PI* 1 *QA*, *ce qui, selon nous, serait* 1 *artaba*, 1 *bath ou épha, le PI serait le nébel des Hébreux.*' This document seems to be the text published, *Doc. Jur.* p. 272 f. The text appears hopelessly corrupt, as Oppert gives it; but certainly does not name the *artaba* at all. Oppert there renders *PI* by *artaba*; which is merely a shrewd guess. The *artaba* is known from Herodotus I. 192, to be 3 Attic *choinices* greater than an Attic *medimnus*, or 51 *choinices*, about $12\frac{3}{4}$ gallons English measure, or 55·81 litres. If this were a *PI*, or 36 *ḲA*, the *ḲA* must be 1·55 litres. If the *ḲA* of corn would sow a *ḲA* of land, and as De Saigey has calculated that 20 litres would sow about 10 *ares*, a *ḲA* of land must have been somewhere about ·775 *ares*. We have found the *ḲA* of land to be about ·521667 *ares*. Hence we may suppose an *artaba* was about 53 or 54 *ḲA*. This is a very precarious sort of argument: if Herodotus is right, the value of the *artaba* in litres is only approximate; De Saigey's value for the seed needed to sow an *are* may be wrong, for Babylonian times, and our area for the *ḲA* may also be inaccurate, according to the cubit values. Professor Oppert's evaluation of the *artaba* at 61·88 litres depends on his 'cube of the half-cubit' of 274·25 millimetres, and his guess that the *artaba* contained about 3 *baths*, which *bath* he considers to be denoted by *ḲA*. His *homer* has four *artabas*, his *gur* 10 *homers*. All these speculations as to the divisions of the *gur* were supplanted by his article in *Z. A.* I. p. 17 f, which has already been discussed.

289. Professor Hommel, *B. D.* p. 219 a, states that 'in Abraham's time there were already three systems simultaneously in use; the *gur* of 360 *ḳa*, the *gur* of 300 *ḳa* ($\frac{1}{6}$ less than the first and standing to it in the same relation as the gold mina of 50 shekels to the silver mina of 60 shekels) and the *gur* of 180 *ḳa*.' This seems to give Abraham a rather longer life than assigned to him in Genesis. According to Dr Hommel the *ḳa* of the last system contained about 2 litres. 'Now since the Heb. *kor* contained 180 *ḳab*, just as the Bab. *gur* contained 180 *ḳa*, it is clear that the Hebrews borrowed both the names and the divisions from the Babylonians. The Hebrew has even preserved the original and fuller form of the name *ḳa*, namely *ḳab*.' Dr Hommel also states that the *ḳa* was a cube of the handbreadth, whose minimum was taken as 99 millimetres, and when filled with water, weighed a great mina. This volume he states to be about a litre. The explanation of the apparent discrepancy is, I suppose, that the *ḳa* of one litre belongs to the *gur* of 360 *ḳa*, and that of two litres to the *gur* of 180 *ḳa*. This would keep the *gur* constant. He also thinks that as *gin* was the 60th part of the *ḳa* and the *hin* the 60th part of the *kor*, the Hebrew *hin* was borrowed from the Babylonian *gin*. But we do not know that the measure written *GIN* was read *gin*, or *ṭun*, or *ṭu*; and the *GIN* is the 60th part of the *ḳa*, which he equates to the Hebrew *ḳab*, not to the Hebrew *kor*. So the Hebrew *hin* was 180 times the Babylonian *GIN*. Dr Hommel also regards the *GAR* as a division of the *ḳa*, as a measure of capacity. I suppose he selected his results from Dr Lehmann and other writers, but I am unable to state the grounds for them.

290. The measures of capacity named in our documents are the *imêr* (often), the *ḳa*, and the *ŠE*. The subdivisions of the *imêr* named are, *PA* in no. 674, *AŠ-u* in no. 674, the *AŠ-2u* in no. 138 and often, 1 (*PI*)*BAR* in no. 136, 1 (*PI*)*PA* in no. 130, which are all quite consistent with *imêr* = 60 *ḳa*. Some other subdivisions are denoted by 1 alone, perhaps 1 *ḳa*, in no. 90; by 10, or *u*, perhaps 10 *ḳa*, in no. 674; by 1-*u*-*u*, perhaps 80 *ŠE*, in no. 674, 1 *KUR*, or 1-*u*-*u*-*u*, perhaps 90 *ŠE*, in no. 674; which seems to me to point to the use of *ŠE* with ordinary numerals to denote subdivisions of the *imêr*, as a measure of corn. These cases afford no additions, and are too few for us to draw any certain conclusions as to the scale in use.

The *maḳarûtu* appears to be a measure used for hay or straw,

no. 151, 5, *B. E.* 2. We may perhaps compare the *maḳarrâtu* of Nbkd. 92, 5, which seems to be an iron vessel, and the *karpat maḳarte* of K 956 *passim*, which seems to be a 'pot' of fish.

Measures of liquid.

291. The table of liquid measures must have been the same as that of dry measure. The Assyrian examples, in our documents, are too few to give any assistance. We have the homer used, for wine, and oil, several times; the subdivision *AŠ-2u* in nos. 122, 123, and the mention of 10 *ḲA*, for oil, in no. 690, are all that can be quoted.

Some other liquid measures may be noted here. In the early times, see Thureau-Dangin, *R. A.* IV. p. 83, there was a *karpat*, or pot, apparently of a definite content, and equivalent to 3 *NIGIN*. This *karpat* seems to have held 20 *ḲA*. It may have been used both for dry and liquid measures.

In later Babylonian times we find the *kâru*, which Tallqvist, *Spr. Nbd.* p. 79, compares with the Hebrew *kor*: but I see no reason to suppose this is a 'Maass für trockene Dinge.'

The *appatum* is mentioned in Nbk. 304, 12. In Cyr. 26 also, 5 *appâta* are a measure of seed or corn: but as this was to serve for a month's food and seed for 60 *GUR* of land I doubt its being less than 12 *GUR*. MM. de Sarzec and Heuzey, *R. A.* IV. p. 93, think that the *AP* was a great basin to hold fish, then an underground cistern or silo for grain, the Greek λάκκος. The *girû* is said by Tallqvist, *Spr. Nbd.* p. 62, to be a *Maass für trockene Dinge*, cf. Hebrew, גָּרְיָא, as also the *buru* is said to be *ein Maass für Gemüse*; these are now both read *gidil*, *gid-dil* and *gidlu*, and appear to mean a 'string' of onions.

A measure, or at least standard vessel, used for containing oil, was the *nisippu*, see Tallqvist, *Spr. Nbd.* p. 105, and Strassmaier's texts. I have not been able to fix its content.

Similarly, we often find a *sappatum*, or *šappatum*, of wine mentioned: Tallqvist, *Spr. Nbd.* p. 112. This seems to have been a definite measure, but I see no data to fix the amount it contained.

I am quite unable to follow the estimates given by Professor Oppert, *Z. A.* I. p. 90. He gives as his results, the table: *GAR-ZUN* = 0·66 litres; *ḲA* = 1·66 litres; *AP* or *medimnus* = 45 litres; *PI* or *artaba* of the Persians = 60 litres; *homer* = 100 litres;

GUR = 300 litres. I am not prepared hastily to reject this, but it looks suspiciously simple, and far too like the modern Metric system to be convincing. Nor am I convinced that his deduction from III. R. 41, 21 really proves that *AP* was 27 *ḲA*. Peiser, *K. B.* IV. p. 74, reads 34 (*GUR*), 1 (*IMER*), 20 (*ḲA*), which seems much more likely to be the right reading; though it does not make the price 137 shekels very clear. As this would yield (6120 + 80) *ḲA*, or if we read 34 (*GUR*), 1 (*PI*), 12 (*ḲA*), 6168 *ḲA*, we should have about 45 *ḲA* of corn per shekel: which may be intended. The *GIŠ-BAR* of *XII ḲA* being named suggests that it was land, not corn, that was intended, the rent of so many *ḲA* of land, at 12 *ḲA* of corn, per *ḲA* of land. However, it may be that some other usage was followed. The *GUR* then may not have had 180 *ḲA*, and the silver piece referred to may not really be a shekel. If we read 34 (*GUR*), 1 (*PI*), 12 (*ḲA*) we shall have 34 *GUR* 48 *ḲA*, or roughly, $34\frac{1}{4}$ (*GUR*) say, of land, and this at 12 *ḲA* per *ḲA* would produce 411 *GUR* of corn, and then one silver piece would be worth 3 *GUR* of corn. As $34\frac{1}{4}$ is divisible by 137, I think it likely that the first side is intended for $34\frac{1}{4}$ *GUR*; at any rate approximately. Without further evidence, both as to the meaning of the silver piece, and as to the connection between these Babylonian measures and some known measure, we must suspend our judgment. Once for all, let me say that the cube of anything seems to me unlikely as a unit of capacity, in these early times: '*Le cube du tiers de l'empan*' can only exist in the fancy of Dr Oppert. It seems most improbable that the Assyrians or Babylonians 'cubed' anything for measures.

292. The return from 60 *gur* of land was estimated, in Cyr. 26, as 300 *gur* of corn. The amount furnished for seed appears to have been 5 *appâta*. Dr Peiser, *K. B.* IV. p. 265, regards this as representing a feminine plural of *appu*. As he points out this *appu* must be larger than the *gur*. This amount of corn was to serve, not only for seed for the 60 *gur*, but also for sustenance for eight labourers on the farm, and fodder for twelve oxen, till the end of the year. As the contract is dated the 29th of Šabâṭu, there was probably only one month to provide for. In Cyr. 64 we see that the allowance per day of corn for one person was 1 *ḲA*, and from Nbd. 841 the allowance for a full-grown sheep was 2 *ḲA* a day. Allowing three times as much for an ox, we have for the men 8 *ḲA*, for the oxen 72 *ḲA* a day, or, for the month, in all 13 or 14 *gur*.

If the seed required for 60 *gur* of land was only 60 *gur* of corn, we have the *appu* more than 14 *gur*. Dr Peiser seems to have retreated from his reading, on p. 74 *K. B.* IV., see his *Nachträge*; and reads 30 (12 + x) *gur*, which he equates to 137 shekels of silver. But the value of one *gur* of corn was usually about one shekel: hence in any case we should have at least 360 shekels. There is reason to suppose that shekels are meant, for the price of an ox is set down as 30, and an ox was worth little more than that. Hence I consider Oppert's reading *AP* here as most improbable. The *appu* of Cyr. 26 is not unlikely to be somewhere about 15 *gur*. If we reject *appu* from III. R. 41, all support for Oppert's *appu* = 27 *ḲA* is gone, and 'the cube of the third of the *empan*' goes with it. Even if the *appu* remained certain, the deduction 27 *ḲA* is not established: for that depends partly on the next line, which, in any case, Oppert read wrongly.

Some check on our views as to the size of the *ḳa* as a measure of capacity may be furnished by the incidental notices in Strassmaier's contracts. Thus the food allowed by the owner to a slave per day was 1 *ḲA*, Cyr. 64. The allowance of corn for a full-grown sheep per day was 2 *ḲA*, for a young sheep 1 *ḲA*, for a lamb ½ *ḲA*, Cyr. 250, Nbn. 841. The value of a *gur* of corn was about 1 shekel of silver, Nbkd. 194, Nbn. 279 and often. The price of dates was 5 shekels per *gur*, Nbn. 103, but also 200 *gur* for one mina of silver.

In the old Babylonian laws published by Meissner, *B. A. S.* III. p. 523, we find as a penalty for some misdemeanour that the defendant shall pay 600 *ḲA* of corn for each *GAN*; and if a shepherd allows his sheep to destroy a crop he shall pay a *GUR* per *GAN*. So too in Meissner's *A. B. P. R.* p. 141 f, we find that a *GUR* per *GAN* was the usual rent: that is to say was the usual *GIŠ-BAR*. The yield was at least three times as much, for we find that the owner of the land took one-third of its produce as his share.

The relation between length and weight.

293. That there was a formal relation between length, by way of volume, and weight seems to me to need more proof than I have yet seen. The measures that we have already dealt with give the impression that weight had to do with grain, that a shekel was the

weight of a certain measure of grain. But it has not yet been made clear that this measure of capacity was directly related to the measures of length. There is more evidence that it was a 'pot' than a cubic box which was the measure. I can imagine the 'pots' kept about the same size, but I doubt their being measured by length. Of course a pot whose linear dimensions were all doubled could hold about 8 times as much: but we are asked to believe that the ancients used an actual cube. For one example, Professor H. Brugsch, in the *Zeitschrift für Ethnologie*, 1889, p. 33 f, shewed that the Egyptian Hin was a measure of ·0547955 litres and when filled with grain weighed 3·6525 *Uten*. Hence the weight of the Egyptian talent, or 60 Hin, was 27·28773 grammes. This was the weight of a cubic measure of water or wine, whose linear dimension was ·30106 metres, or about an Egyptian foot. Again, Dr Lehmann, *A. M. G.* p. 306, concludes that the tenth of the common Babylonian ell (or cubit) was the side of a cubic measure, whose weight filled with water gave the common 'heavy' mina. For the heavy mina of the common norm in old Babylonian times weighed 982·4 to 985·8 grammes. This is the weight of a cubic measure of water whose side is 99·4 to 99·5 millimetres, just about 6 of Gudea's *ubânê*, and therefore the tenth of the *Ú* of the Senkereh scale. But here is the weak point of the argument; if the water was to be any known Babylonian measure it ought to be a pot-ful, not a cube of any length. Further, while there is abundance of evidence of changes in weights and measures, we ought to shew that they changed together. If a new cubit came in vogue the weights should have changed in the triplicate ratio. There is ample proof of a change consisting in the adoption either of a double cubit or a double weight. There is evidence that as the Assyrians and Babylonians reckoned areas, the double cubit would lead to a double area unit: unless indeed they also doubled the width of the strip. If when the cubit was doubled a double length of a cylindrical pipe was chosen as the new measure of water for the new weight, the weight would be doubled. Or if it were a rectangular trough, doubling its length would produce the same effect. But if the measure had to be a cube, then as each dimension was doubled the weight would be eight-fold. Hence, without further evidence, I doubt their using a cube. If they did not, then the above examples are mere coincidences. Besides this, the probability is considerable that grain, not water, was weighed. The specific gravity of grain would throw out the whole calculation.

In a comparative table of weights it is to be expected that they will vary as the cubes of their linear dimensions, for it is not likely the weights in use were always lion- or duck-shaped; bars or ingots of fixed linear dimensions would be in use, and if it came to pass that these lengths all varied in one and the same ratio, the weights would vary in the triplicate ratio. By such weights the lions and ducks were probably calibrated. The principle is sound, but the statement that a cube was taken as a unit of volume does not carry conviction to my mind. If, however, we accept this statement, we are not yet in a position to accept Oppert's statement that the *ḳa* was the volume of a cube of a third of the span. Not only is his argument doubtful, but this result would be at variance with Lehmann's above. At any rate we require more evidence before we can accept Dr Hommel's statement, *B. D.* p. 219, that the heavy mina was the weight of a *ḳa* of water, which would mean that a *ḳa* was ·99 litres nearly. Fortunately we are in no way dependent on these theoretical interrelations for a knowledge of Assyrian weights. We have ample means of fixing them by direct measurements of actual weights whose denominations are known.

The Assyrian weights.

294. The system of weights in use in Assyria appears in our documents chiefly as a money system. Whether anything like coin existed, or not, the statement of prices names only weights of bullion. Naturally one absolute requirement of a sound system of monetary values is the existence of definite weights. The Assyrian and Babylonian weight standards have already received considerable attention from Metrologists. The material for their accurate determination is extensive. There are preserved in the British Museum and elsewhere a large number of inscribed and uninscribed weights of stone, clay, or bronze. These are of very different dates and were found at places widely distributed in Assyria, Babylonia and elsewhere. When inscribed, we can have no doubt of their denominations, unless indeed the inscription omits that particular. When weighed in modern balances we can have no doubt as to their absolute weights. Further, many of them can be accurately dated, at any rate ascribed to one epoch or reign. Hence this branch of metrology is in a far more satisfactory state than any other.

The Assyrian weights are the best attested of all. Most of those

in the British Museum were weighed by an officer of the Mint and the weights published in a clear and authoritative form in the Ninth Annual Report of the 'Warden of the Standards,' dated March 31st, 1875. The Aramaic and cuneiform inscriptions, as far as preserved, were published in the *Corpus Inscriptionum Semiticarum*, pars sec., t. i, fasc. i, pp. 2—13, May, 1888. This publication settled the denominations of the corresponding weights and served to correct some previous misreadings. Other examples, Babylonian weights, have been brought to public notice from time to time. A very full discussion of these weights is given by Dr Lehmann, *A. M. G.* pp. 245—328. The interrelations of the Assyrian and Babylonian systems and their connection with many other systems of antiquity are there set forth in a clear and often convincing manner. It is only when the relations between weight and length are touched upon that an element of uncertainty appears. Leaving that on one side, and confining ourselves chiefly to Assyrian standards, we have a very solid basis of facts to build upon. We have a complete knowledge of the weight standards of Assyria at one definitely known epoch.

295. The Assyrian Standards are chiefly sixteen bronze weights, found in 1853 by Sir A. H. Layard in the N.-W. Palace at Nimroud, the ancient Kalaḥ. They are usually said to have been found at Nineveh, which implies that Nineveh may be regarded as including Kalaḥ. Representations of them are given in the 'First series of the Monuments of Nineveh, plate 96.' In the account there given we find the following description, 'crouching lions, discovered beneath the fallen bull at entrance b of the great hall of the North-West Palace, Nimroud. They were sixteen in number, the largest being $11\frac{1}{4}$ inches in length and the smallest $1\frac{3}{4}$ inches. Most of them had rings attached to the back. A lion, also in copper and with a ring attached to the back, was discovered in an entrance in the ruins of Khorsabad.' Compare Layard's *Nineveh and Babylon*, p. 601, where also the inscriptions were first given. Layard's abridged account, in *Nineveh and its remains*, p. 89, states that they were found under the body of a fallen winged human-headed bull in the N.-W. Palace, Nimroud. It does not appear certain from these accounts whether these weights were disinterred from the foundations of the palace, beneath the pediment of the bull colossus, or whether they simply lay on the floor and had been covered by the prostrate bull. In the former case, it may be reasonably conjectured that their deposit partook of the nature of a ceremony, similar to those

which still accompany the laying of a foundation stone, and that they were therefore 'standard weights.' On the other supposition, they may have been actually in use, in the transactions of commerce, conducted at that palace gate, at the time when the bull fell down. In the former case, one would expect the weights to have been of one date, that at which they were enclosed in their receptacle. It is unlikely that this would be reopened to admit weights of other dates. In either case, their enclosure or their burial beneath the fallen monument took place at least as late as the reign of Sennacherib, for one bears his name as reigning monarch. They are of varied dates: one belongs to Tiglath-Pileser III., B.C. 747—725; eight to Shalmaneser IV., B.C. 725—720; three to Sargon II., B.C. 720—707; one to Sennacherib, B.C. 707—668, and one is undated. On fourteen, Aramaic inscriptions occur; twelve of these have also an Assyrian inscription, one bears an Assyrian inscription without any Aramaic, and one is entirely uninscribed. Several have lost their rings, one has been adjusted by the addition of lead to its base. They seem far more likely to have been a tradesman's stock of weights, or those of some palace steward, accidentally overwhelmed by the fallen colossus, than a standard selection, deposited for the sake of furnishing a record.

296. The lions are referred to as *leo* 1, *leo* 2, &c., and it will be easier to describe each separately than to tabulate the results.

Leo 1 weighs 14933·7 grams, and bears in Aramaic characters the inscriptions:

(*a*) on left side, מנן 15 בזי ארקא;

(*b*) on right side, the number 15, indicated by fifteen verticals;

(*c*) on base, חמישתעשר מנין (בז)י מלך.

There is no cuneiform inscription, consequently we cannot date this weight, but it is in all probability of Shalmaneser's time.

The word מנן is of course the plural of מנה, the Greek *μνᾶ*, the weight usually called a mina. The preposition זי is the well-known old Aramaic word, meaning 'of.' The word ארקא occurs in the Aramaic inscription on Sm. 921 as answering to the Assyrian *âlu*, 'city' or 'district,' corresponds with the Assyrian *mâtu*, in the cuneiform inscriptions on other lion weights, is found in Mandaic and in the old Aramaic inscriptions of Sendschirli: see Nöldeke, *Mandäische Grammatik*, § 66, p. 73, and Sachau, *Ausgrabungen in Sendschirli*, p. 68, l. 5, &c., Cook, *Aramaic Glossary*, *sub voc.*; cf. Jeremiah x. 11.

The letter ב occurs on several of the other lions, nos. 2, 3, 4 and on the Babylonian duck weight no. 20. It was connected with the זי, by G. Smith (?), and read Baz, but that leads to no sense at all. Now we may expect in the Aramaic a close rendering of the cuneiform: and one fairly common way of expressing a standard is *ina ša*, an abbreviated form of the phrase *ina ištên manî ša*, reckoned 'at one mina of.' The continual rendering of *ina* is ב, and of *ša* is זי, hence *ina ša* is simply turned into בזי, which must have the same meaning.

Hence (*a*) means: '15 minas reckoned at the rate of one mina of the country.' The reading of (*b*) calls for no remark. In (*c*) we have, first, the Aramaic transliteration of the Assyrian *ḫamišerit*, 'fifteen,' then מנין noticeable for the presence of י, then a space where בזי is restored with great probability and finally מלך. This must mean '15 minas reckoned at the rate of one mina of the king.' We may abbreviate the renderings of (*a*) and (*c*) to closer conformity with their actual readings by rendering בזי more concisely 'of': we thus render (*a*) '15 minas of the country,' (*c*) '15 minas of the king.'

Hence we see that a 'mina of the king' is the same as 'a mina of the country' and that each might weigh 995·58 grams. This is heavier than the single mina weights nos. 10 and 11 below. We shall see that there are two sorts of mina, one weighing nearly twice as much as the other. This may be called a 'heavy' mina. By many, following Lenormant, the presence of the ב was taken to mean a mark of the 'heavy' mina, as only weights of that type have it. But it is absent from the 'heavy' weights after no. 4, and the Babylonian duck, no. 20, which has it is 'light': and the rendering above will probably be ultimately recognised as correct.

Leo 2 weighs now 5042·7 grams, and bears in Aramaic characters the inscriptions:

(*a*) on the right side, מנן 5 בזי ארקא;

(*b*) on the left side, 5, with five verticals;

(*c*) on the base, חמשא מ(נן בז)י מלך; and in cuneiform the words, *êkal AN-DI-MAN-BAR šar mât ÁŠ V MA-NA ša šarri*: cut on the back of the lion. Hence this weighs '5 minas of the country,' or '5 minas of the king': and was property of 'the palace of Shalmaneser IV.' It gives a mina weight of 1008·54 grams and belongs to the 'heavy' set.

Leo 3 weighs 2985 grams, and bears in Aramaic characters the inscriptions:

(*a*) on the right side, מנן 3 בזי ארקא;

(*b*) on the left side, 3, with three verticals;

(*c*) on the base, שלשא מנין בזי מ(לך; and in cuneiform the words *êkal AN-DI-ma-nu-*(*BAR*) *šarri III MA-NA ša šarri*: cut on the lion's back. Hence it weighs '3 minas of the country,' or '3 minas of the king,' and belonged to the palace of Shalmaneser IV. It gives a mina weight of 995 grams and belongs to the 'heavy' set.

Leo 4 weighs 1992·1 grams, and bears in Aramaic characters the inscriptions:

(*a*) on the right side, מנין 2 בזי ארקא;

(*b*) on the left side, 2, with two verticals;

(*c*) on the base, מנ(ין ב)זי מלך.....; and, on the back of the lion, in cuneiform the words, *êkal AN-DI-.....šar mât ÁŠ, II MA-NA ša šarri.* Hence it weighs '2 minas of the country,' or '2 minas of the king,' and belonged to the palace of Shalmaneser IV. It gives a mina weight of 996·05 grams and belongs to the 'heavy' set.

Leo 5 weighs 1931·23 grams, and bears in Aramaic characters the inscriptions:

(*a*) on the side, in two lines, מנן 2 and זי מלך; and (*b*) on the back, in cuneiform, *êkal AN-DI-MAN-BAR šar mât ÁŠ, II MA-NA ša šarri.* Hence this weighs '2 minas of the king' and belonged to the palace of Shalmaneser IV. We may note the absence of ב, although it gives a mina of 965·615 and must therefore belong to the 'heavy' set. It is not said to be '2 minas of the country,' though from its weight it must have been such. The weight appears to represent a lioness or at any rate a lion of a different type. We may regard it therefore as an odd specimen. The use of זי alone is paralleled by the use of *ša* alone, in our documents; see § 299. This weight has had lead hammered into the hollows of the base, evidently to adjust the weight.

Leo 6 weighs 946·462 grams, has no Aramaic inscription at all; the cuneiform inscription given by Layard, *Nineveh and Babylon*, p. 600, is *êkal Tukulti-apil-ešarra, šar mât ÁŠ, II MA-NA šá* (*šarri*). The *šá* is pretty certain, the *šarru* has completely disappeared. This then weighed 2 minas of some sort and gives a mina of only 473·231 grams. It belonged to the palace of Tiglath-Pileser III., and is clearly of the 'light' set.

Leo 7 weighs 1036·49 grams, and is uninscribed. Its very perfect state and great weight, as well as its uninscribed condition, lead me to think it was new when the Bull-Colossus fell on it.

It had probably not been finished and would have been reduced in weight before being brought into use. We have no means of deciding whether it would have been used as 1 mina of the 'heavy' sort, or 2 minas of the 'light' sort. It therefore gives no assistance to any estimate of either standard.

Leo 8 weighs 954·566 grams, and has in Aramaic characters the inscriptions:

(*a*) on the base, מנה מלך;

(*b*) on the right side, מנה;

(*c*) on the left side, one vertical. The cuneiform inscription on the back reads *êkal AN-DI-MAN-BAR šar mât ÁŠ*, 1 *MA-NA ša šarri*. Hence it weighed 'a mina of the king,' and had belonged to the palace of Shalmaneser IV. It is a 'heavy' mina. We may note that, naturally, both ב and זי are absent; it was needless to state that it was 'according to' the mina of any standard, being itself '1 mina.'

Leo 9 weighs 665·795 grams, and bears in Aramaic characters the inscriptions:

(*a*) on the base, סנב ארקא;

(*b*) on the left side, the sign denoting $\frac{2}{3}$. On the right side of the lion is cut the cuneiform inscription, *êkal AN-DI-(MAN-BAR) šar mât ÁŠ*, $\frac{2}{3}$ *MA-NA ša šarri*. Hence this weighed '$\frac{2}{3}$ of the mina of the country,' or '$\frac{2}{3}$ mina of the king.' This gives a mina of 998·693 grams and belonged to the palace of Shalmaneser IV. The Aramaic סנב is of course a transliteration of the Assyrian *šinibu*, 'two-thirds.' Once again we see, the mina 'of the king' is also that 'of the country.' The prepositions indicating the standard are obviously not needed here.

Leo 10 weighs 480·145 grams, and bears in Aramaic characters the inscriptions:

(*a*) on the base, מנה מלך;

(*b*) on the left side, one vertical; and on the right side of the lion, in cuneiform, *MAT MAN-DU šar mât ÁŠ*, *I MA-NA šá šarri*. Hence this weighed 'a mina of the king,' and belonged to Sargon II. The reading and rendering of *KUR* or *MAT* here are open to question. It can be read *kišit*, 'property': but analogy suggests that it is an ideogram for 'palace.' There is good reason, see § 207, for thinking that *MAT* was so used as equivalent to *êkallu*. This was a 'light' mina. It was not a mina 'of the country.'

Leo 11 weighs 468·388 grams, and has in Aramaic characters the inscriptions:

(*a*) on the base, מנה מלך;

(*b*) on the left side, one vertical. It had also a cuneiform inscription cut on the right side of the lion, now almost effaced, which Mr Pinches thought might contain the remains of Shalmaneser's name, but which I regard as the traces of *MAN-DU*, i.e. Sargon. Hence this lion, which has lost its ring or handle, is really a duplicate of the last. The amount of the weight lost can only be estimated, and the lion gives a 'light' mina. It cannot however be relied upon to fix the value of a 'light' mina. It was not a mina 'of the country.'

Leo 12 weighs 240·07 grams, and bears on the right side, in Aramaic characters, the signs פרש, and on the lion's back, the cuneiform inscription, *MAT AN-XXX-BAB-MEŠ-SU šar mât ÁŠ*, ½ *MA-NA*. This weighed 'a half mina' and belonged to the palace, *MAT*, of Sennacherib. It is the latest in date of all the lions and gives a mina of 480·14 grams and was therefore 'light.' So far as its inscription goes we cannot say whether it was 'of the king,' or 'of the country.' It has lost its ring and therefore cannot fix the weight of any mina.

Leo 13 weighs 236·678 grams, and bears in Aramaic characters the inscriptions:

(*a*) on the right side, רבע ארקא;

(*b*) on the left side, 4, with four verticals. The cuneiform inscription reads, *êkal AN-DI-(MAN-BAR) šar (mât ÁŠ), IV-tú ša šarri*. Hence it weighed 'a quarter mina of the country,' or 'a quarter mina of the king.' It belonged to the palace of Shalmaneser IV., and gives a mina of 946·712 grams, a 'heavy' mina. It has lost its ring, which would bring up the weight to as much as 252 grams, and give a mina of 1008 grams probably.

Leo 14 weighs 198·416 grams, and bears both on its base and on its right side, in Aramaic characters, the word חמש, on its left side five verticals. The cuneiform inscription, cut on the back, reads *êkal AN-(DI-MAN)-BAR šar mât AN-ḪI V (SU MA-NA ša) šarri*. Hence it weighed 'a fifth of a mina of the king.' It belonged to the palace of Shalmaneser IV., and would give a 'heavy' mina of about 992·08 grams.

Leo 15 weighs 50·236 grams, and bears on its base in Aramaic characters the words 3 שקלן, and on the right side three verticals.

The cuneiform inscription is *êkal MAN-DU šar mât ÁŠ.* The word שקלן is not Aramaic, but clearly a transliteration of *šiḳlu*; see § 300, *infra.* Hence this lion weighed '3 shekels' and belonged to the palace of Sargon II. It would give a mina of 1004·73 grams, certainly a 'heavy' mina.

Leo 16 weighs 33·63 grams, and bears on its right side the inscription in Aramaic characters 2 שקלן. It has no cuneiform inscription, consequently we do not know to which reign it belongs. It gives the weight of 2 shekels, whence we deduce a mina of 1009·1 grams, clearly a 'heavy' mina.

297. We know from our documents and other sources, see § 299 f, that the denominations of the weights in use in Assyria, were mina, shekel, and talent. The Aramaic inscriptions on these lions are perhaps as much transliterations of the Assyrian words as proper translations. Hence without confirmation from Aramaic literature we are not justified in assuming the words they contain to belong to the Aramaic vocabulary. The weight of the Assyrian mina as given by these lions varies considerably. Thus leo 1 gives 995·58 grams; leo 2, 1008·54 grams; leo 3, 995 grams; leo 4, 996·05 grams; leo 5, 965·615 grams; leo 6, 473·231 grams; leo 7, perhaps 1036·49 grams; leo 8, 954·566 grams; leo 9, 998·693 grams; leo 10, 480·145 grams; leo 11, 468·388 grams; leo 12, 480·14 grams; leo 13, 946·712 grams; leo 14, 992·08 grams. Taking account however of the damage suffered by some and of the fact that the best preserved agree well together, they are reasonably divided into two sets. The first set, leo 1, 2, 3, 4, 5, 8, 9, 13, 14, give a mina of say 1010 grams, while the second set, leo 6, 10, 11, 12, give a mina of 505 grams, exactly half as heavy. It has therefore been usually agreed that there were in use in Assyria, at the same period, two systems of weights in one of which the mina weighed twice as much as in the other. These systems accordingly have received the names of the 'heavy' and 'light' mina systems. We may say that the 'heavy' mina in Assyria weighed 1010 grams, the 'light' mina 505 grams.

298. It is clear however that these weights do not exactly support such a rigid view. The agreement between the separate members of the systems is not perfect. Still we shall accept it as a working hypothesis to be modified by further research, if necessary. The presence of the Aramaic inscriptions has been variously regarded, and, I think, misunderstood. Aramaic inscriptions occur

also on contract tablets and on many other articles of use in Assyria and Babylonia. I do not think they were necessarily meant to inform men who could not read cuneiform, but were a readier method of writing memoranda than the more formal cuneiform.

Mr B. V. Head, in his *Historia Numorum*, Introduction, p. xxxi., as quoted by Prof. Ridgeway, *O. C. W. S.* p. 200, said, 'It has been suggested that the lighter of these two minae may have been peculiar to the Babylonian, and the heavier to the Assyrian empire; but this cannot be proved. (But) nevertheless it would seem that the use of the heavy mina was more extended in Syria than that of the lighter, if we may judge from the fact that most of the weights belonging to the system of the heavy mina have, in addition to the cuneiform inscription, an Aramaic one. The purpose which this Aramaic inscription served must have clearly been to render the weight acceptable to the Syrian and Phoenician merchants, who traded backwards and forwards between Assyria and Mesopotamia on the one hand and the Phoenician emporia on the other.' This view of the purpose of the Aramaic inscriptions does not seem justifiable. It is true that all the 'heavy' minas have Aramaic inscriptions, but so have three out of four of the 'light' minas. Assuming that the Aramaic inscriptions were addressed to foreigners, we must notice exactly what they assert. In six cases, they state the mina to be 'of the country,' using for country the word ארקא. This word can hardly refer to any country but Assyria, for in each case the mina is said also to be 'of the king,' מלך, or *MA-NA ša šarri*. This must surely stamp it as Assyrian. On the other hand, while the 'light' minas, leo 10 and leo 11, are 'of the king,' they are not 'of the country.' Further, as we shall see, the Carchemish mina was 'light.'

I take the purpose of the inscriptions to be rather different. The information conveyed both in Assyrian and Aramaic, 'this is the mina of the king,' on either 'light' or 'heavy' mina, gave the royal sanction to its use. It doubtless implied that no third standard was legal. The Aramaic inscription on the 'heavy' minas, if read by a Syrian merchant, who used a different mina at home, informed him that this was 'the mina of the country,' or 'city,' where he had come to trade: it implied that his Assyrian customers were within their rights in insisting on its use. That the royal sanction was also given to the 'light' mina, seems to me to have been an attempt to legitimate its use, and perhaps to coordinate the Syrian with the native scale. The Syrian 'light' mina may not have

been exactly half the Assyrian mina. At any rate the 'light' mina is never stated to be 'of the country.'

As we shall see, the evidence of the documents goes to shew that the mina in ordinary use in Assyria was 'heavy': and about double the Carchemish mina. The evidence of the Babylonian duck weights, as given in the Report of the Warden of the Standards, shews that the 'light' mina was predominant in Babylonia. An early Assyrian duck weight gives a mina of only 493 grams. This belongs to the reign of Nabû-šum-lilbur, who must precede B.C. 893, from which date the Eponym Canon gives the succession of Assyrian kings. This king probably belonged to a period when Assyria was dependent on Babylonia.

299. Dr Lehmann, *Acts of VIIIth Oriental Congress*, p. 179, shewed that the 'light' mina of Babylon was even lighter than half the 'heavy' mina of Assyria. He makes it about 490 grams. With this closely agree the weights of leo 6, 10, 11, 12. Indeed there does not seem any clear proof that in Assyria even, the 'light' mina was *exactly* half the 'heavy' one. The 'light' mina in both countries may be taken as about 490 grams, and that was probably also the weight of the Carchemish mina. The 'heavy' mina, however, was not unknown in Babylonia, for a weight of the time of Nebuchadnezzar II., a reproduction of a mina weight of the time of Dungi, circ. B.C. 2500, weighs 982 grams. This shews that in Babylonia also, at one period, two standards, one double of the other, existed side by side. Of these two standards, used in early Babylonian times, Assyria seems to have adopted the 'heavy,' Babylonia and Syria the lighter standard. Hence the opinion, which Mr Head stated to be without proof, is probably not far from the truth.

It will be observed that Shalmaneser's weights are all 'heavy': the 'light' minas belong to Tiglath-Pileser, Sargon and Sennacherib. Sargon also has a 'heavy' mina. These standards date from a time when the Carchemish commercial influence was probably at its height and when the inconvenience of a mina of different weight from that of the merchant was most severely felt. When Carchemish had become part of the Assyrian empire, commerce may have been left to take its own course. Sargon alone explicitly says the 'light' mina was 'of the king.' It will not do to press this, as the omission of the statement in the other cases is parallel to other omissions, where we know it was nevertheless true. We do not know what lion 6 had to say upon the point. But as far as it goes, the evidence

shews that Sargon gave it royal sanction, and Tiglath-Pileser and Sennacherib tolerated it.

Brandis, *Das Münz-, Mass- und Gewichtswesen*, p. 48, mentions a very perfect bronze lion weight, from Khorsabad, now in the Louvre, which gives a 'heavy' mina of 1006·66 grams. It is uninscribed and of course could be reckoned to either standard, and as it is probably of Sargon's time, may well be 'light.' Brandis took the 'heavy' mina to be 1010 grams. Some of the lions closely approximate to that: none are quite perfect and all were probably once a little heavier than they now are.

It is worth noting, perhaps, that these lions, as well as the Khorsabad lion, were found at an entrance. The connection of a gate with commercial transactions is almost universal in the East, and we may presume that the steward of the king's household would deal with the tradesmen and merchants at the gate of the palace. It is natural therefore that the weights should in both places, Nimroud and Khorsabad, be found at an entrance.

The evidence of our documents.

300. When we turn to our documents we find sums of money expressed in the three denominations, shekels, minas, and talents. We are generally told that, in the Babylonian system, the weights in use for weighing bullion as money were not the same as those used in weighing commodities; for example that the gold-mina was $\frac{5}{6}$ of the weight-mina, and the silver-mina $\frac{10}{9}$ of the weight-mina. I have not been able to find any grounds for applying these results to Assyria. At the same time I am not prepared to maintain the assertion that the standard weights deduced from the bronze lions are the weights of the minas and shekels in use for money weighings. That what is called a mina of gold would balance a mina of silver, or a mina of wool, may be true but very likely was not, let him who knows shew what his knowledge is.

The mina was considered the unit, the shekel being a subdivision and the talent a multiple of it. In Assyrian reckonings sixty shekels made a mina, sixty minas a talent. This scale has long been known, being deduced from numerous cases of additions of sums of money, chiefly drawn from the contracts of later Babylonian times. The assumption that the relation between the shekel and the mina was the same in Assyria as in Babylonia is a natural one to make; but

needs further support. On K 177 we find that 5 minas 50 shekels and 1 mina 10 shekels amount to exactly 7 minas. As this applies to Assyria directly, it removes all shadow of doubt that in both countries the mina contained 60 shekels. That the talent was 60 minas is proved, for Babylonian weights, by Strassmaier's Nbd. 545, where we have 56 minas + 53½ minas = 1 talent + 49½ minas. G. Smith, *Z. Ae. S.* 1872, p. 110, however, shewed that, in Assyria, a talent was 30 minas, basing his argument on II. R. 53, no. 2, R 39—46, and on K 827 where two sums each of 26 minas are added as 1 *GUN* 22 minas. These sums apply to amounts of wool weighed out to the palace weavers. The wool talent seems therefore to have contained, in Assyria, only 30 minas.

I have not met with any trace of the *šê*, or 'grain,' so often occurring in early Babylonian contracts. Reisner, *S. B. B. A.*, 1896, p. 418, has shewn that the shekel contained 180 *šê*, and taking the wheat grain as ·046 gram we should obtain a mina for early Babylonian times of 504 grams. This is a confirmation of the duck-weight evidence, it gives the light mina of Assyria also. Of course other grain may be meant and these would give a slightly different result.

It is worth noting that the two standards equally apply to money. Nor can we suppose that one standard was used for one class of goods and the other for different commodities. There is no indication that prices of slaves were generally paid in one standard while prices of land were paid in another.

301. A subdivision of the mina which occurs in estimating the value of amounts of corn is the *ḳa*. It may be 'a measure' rather than 'a weight.' Its name seems, however, to have passed over to a subdivision of the bronze mina. We read of so many *ḳa* of bronze, but not of a shekel of bronze, though the mina and talent of that metal often occur. It is natural to assume that the *ḳa* was one-sixtieth of the bronze mina: but it is only an assumption. The *ḳa* of bronze only occurs in estimating corn rents from land, the highest number of *ḳa* named is 10.

302. There seems to have been another mina-shekel relation. In no. 686, the addition made by the scribe involves the relation 'ten shekels to the mina.' The separate items are '12 shekels,' '22 shekels,' 'half a mina,' 'one mina 10 shekels,' in all, therefore, 'a mina and a half and 44 shekels.' The scribe gives the total as '7 minas and a half,' at least, the exact number of shekels being lost.

The conclusion already pointed out by Dr Bezold, *Cata.* p. 1632, is irresistible. In the system of weights used for some commodity, perhaps drugs, there were ten shekels to the mina. What this commodity was does not appear from the text.

303. In the estimation of weights of certain 'stones,' used apparently 'to produce magical results,' a subdivision of the mina, below the shekel, is expressed ideographically by the sign *KISALLU*, Br. no. 5479: this was perhaps read *pur*, and may be identical as a weight with the *šê*, but there is no direct evidence of this. Dr Bezold has already pointed out this measure, in his remarks on K 8976 and K 9544, *Cata.* p. 976 and p. 1020. The highest number of *KISALLU* given is 15, also a half *KISALLU* is named. The use of different weights for this class of article forms a parallel to our apothecaries' weight. Unfortunately no total is given by the scribe which would enable us to determine how many *KISALLU* are contained in the shekel, nor how many shekels in the mina of this measure.

304. The weights, shekel, mina, and talent were used for many other commodities such as wool. The list K 1449, II. R. 53, no. 2, gives so many minas or talents of woollen stuffs. These may be garments, or woollen yarn of various colours, allotted in varied amounts to the weavers in different cities, quarters of Nineveh and Kalaḥ and in the palaces.

305. That the mina, not the shekel, was considered to be the unit is shewn clearly by the fact that not only minas but shekels were reckoned according to the mina of Carchemish. Of course this does not establish the fact that the mina was the first 'money' known in Assyria, nor that the shekel was adopted later, but it has some bearing on the names given to the ideograms for these weights, as we shall see later; § 299.

In by far the greater number of cases, however, no reference is made to any particular mina as unit, the price is stated simply as so many shekels, minas or talents. In all such cases, some well-known standard weights are clearly implied, any unusual standard would be named, if intended. Had no other standard existed but this, it would hardly occur to any one to suppose that it was any other than the standard 'of the country,' that is, of Assyria. This phrase is actually used, *manû ša mâti* occurs on no. 376, and there is no reason there to suppose it any other than the standard usually implied but unnamed. We know, however, that more than one standard was in use

in Assyria, and so may expect any deviation from this ordinary unnamed standard to be expressly specified. Such specifications of special standards repeatedly occur, and strengthen the presumption that the unspecified weights are the ordinary weights 'of the country.' This designation we have already seen to belong to the 'heavy' weights.

306. The mina most often named is that of Carchemish, obviously its being so specified stamps that mina as not 'of the country.' Its being most often named, by no means implies that it was most often used. The unspecified standard, the usual standard of the country, was that most often used and therefore needed no specification.

The next most frequent specification is mina 'of the king,' which we have seen would apply to either 'light' or 'heavy' minas, provided of course that they agreed with the royal standards. Three times, in nos. 244, 254, and 434 we read of the mina 'of the merchant.' One or two local standards also occur, thus in no. 310 we have the mina of Gadasamerâti, on K 573 the mina of Babylon.

307. We are nowhere, in our documents, expressly told anything as to the relations between these standards, nor is any one price ever expressed in two different reckonings. The inscriptions on the lion weights however give us some guide. In Aramaic the 'heavy' minas, leo 1, 2, 3, 4, 9, and 13, are said to be 'of the country,' ארקא. For this word, we may compare Jer. x. 11; on the lions it answers to the Assyrian *mâtu*, though the phrase *manû ša mâti* does not actually occur there. In the Aramaic docket of no. 378, we have ארק חמע corresponding to *âl Ḫame*. The sense therefore must be 'district' or 'region.' The mina is the 'local' standard. On lions 1, 2, 3, 4, 5, 6, 8 we further find that the 'heavy' mina is that 'of the king,' מלך. This is borne out by the cuneiform inscriptions on lions 2, 3, 4, 5, 6, 8, 9, 13 and 14: which call the 'heavy' mina, *manû ša šarri*, using the same phrase as we find in our documents. The sign for *šarru* is *MAN* in nos. 2, 8, and *LUGAL* in nos. 3, 4, 5, 9, 13, 14. This leaves no possible room for misreadings, and the phrase can hardly mean anything but that these weights had received royal sanction as fair measure.

The Aramaic inscriptions on the 'light' standards, lions 10 and 11, give them the name of mina 'of the king,' מלך, and the cuneiform inscriptions on the 'light' lions, 6 and 10, further say they are the mina 'of the king,' *ša šarri*. When therefore we meet in our

documents with mina 'of the country,' we are sure it was a 'heavy' mina, but mina 'of the king' leaves it quite open whether the mina was 'light' or 'heavy.' No one of the bronze lions is inscribed 'mina of Carchemish.'

A comparison of prices given in our documents will serve I think to establish some further relations. The results to which they point are that the standards, which they call mina 'of the king' or mina 'of the country,' are the same as those which they usually leave unspecified. This being so we may conclude of the 'heavy' standard:

(i) that it was generally used, and intended always, when not specified;

(ii) that it was occasionally specified, as the mina 'of the country';

(iii) that it was more often specified, as the 'mina of the king.'

Further the price lists shew that the mina of Carchemish was only half as heavy as the mina generally used, which we have seen to be the 'heavy' one. It also seems to be the same as the mina 'of the merchant,' a very natural result to expect. It was therefore the same as the 'light' mina of the lion standards. No other 'light' mina can be recognised. The 'light' mina 'of the king' therefore appears to have been a concession to the Carchemish influence. We may therefore conclude of the 'light' mina:

(i) that it was not in practice called the mina 'of the king,' although from the lion standards we know that royal sanction was given to its use, and it was entitled to be so called;

(ii) that it was much less commonly used and always regarded as needing specification;

(iii) that when used, it was regarded as foreign, and specified as a Carchemish mina; or the mina 'of the merchant.'

308. For an examination of the prices necessary to establish these points and for a discussion of apparent exceptions, the reader may consult the chapter on Prices. To take but one example here; when we compare the ordinary prices of an ordinary slave girl, we find that her price in Carchemish money is double that in 'royal,' 'country' or unspecified standards. The conclusion is that Carchemish minas were 'light.' I do not see that this proves that the normal weight of a Carchemish silver mina was exactly half of the 'heavy' Assyrian mina, nor exactly equal to that of the Assyrian 'light' mina: but that in popular use the only 'light' mina was the

Carchemish one. The mina 'of the merchant' is apparently another name for the same thing.

309. That the mina used in the transaction was one of a particular standard could be variously expressed. The mina is usually written ideographically *MA-NA*, and phonetic complements added. So 'according to the mina of' is expressed by *ina I MA-NA-e ša*, *ina I MA-NA-e šá*, *ina I MA-NA ša*, *ina I MA-NA šá*, *ina I ma-ni-e ša*, all of which are clearly to be read *ina ištên manê ša* and rendered literally 'at the rate of one mina of.' In no. 242, *ina I MA-e-ša* may be an error, but *MA* may be an abbreviation for *MA-NA*. The *I* is often omitted, thus we have *ina manê ša*, in various spellings. The *ša* is omitted, and we have *ina I manê*, or *ina manê*. A more marked condensation is *ina ša*, instructive as to the origin of double prepositions, corresponding to the בזי of the Aramaic inscriptions of the lion weights, which may be for במני זי, 'according to the mina of.' *Ša* alone may be used, like the זי of the Aramaic זי ארקא. Finally the name of the city, or *šarri* may appear alone. A curious turn is given to the phrase in no. 413 l. 6, where we have 72 minas of bronze *napḫar manî šarri*, 'all minas of the king.' The curious text, no. 469, full of rare and perhaps foreign phrases, seems to read *ina* 5 *MA-NA*, which may be the amount of the price rather than its standard. In all the above cases *ina* is written with the horizontal wedge *ÁŠ*, which may also be read *ana*; but as *ana manê* means *per mina*, I have preferred to read *ina* here.

These examples shew that the phonetic reading of *MA-NA* is *manû*. In Strassmaier's Nbkd. 17, 6 we have *ma-nu-ú*. It may be connected with *manû*, 'to count,' 'to reckon,' and so properly mean 'amount.' The writing *MA-NA* would then be a pseudo-ideogram, like *GAM-MAL* for *gammalu*, *GU-ZA* for *kussû*, &c.

310. When a price is expressed in 'talents,' we always have the ideogram *GUN*, but a phonetic spelling *bi-lat* occurs in several places, in such a way as to leave little doubt that the phonetic reading of *GUN* in this connection was *biltu*. The meaning of this word was originally 'load,' what was 'carried' or 'brought.'

The shekel is always written with the sign *GIN*. The identification of these ideograms with their Semitic names was long subsequent to the recognition of their nature and relations. The *MA-NA* at once easily suggested mina, but it was often wrongly read *mana*. So the sixtieth of the mina long bore the name of darag mana, a name due to Dr Oppert, and suggestive of drachma:

see *Z. A.* I. p. 430. The Aramaic inscriptions on the lion weights, however, settled its reading within a little. The שקל, clearly the same name as the Hebrew שֶׁקֶל, was certainly its Aramaic reading, but would *šiḳlu* be the Assyrian equivalent? An actual phonetic reading in cuneiform was at last given by Meissner who quoted from the tablet, 82–7–14, 846, the equation 6 *GIN KUBABBAR NI-LAL-E = siš-šit šiḳ-lu kaspi i-šaḳ-ḳal*: see *A. B. P. R.* p. 93, and *Z. A.* VII. p. 20. As *šaḳâlu* means 'to weigh,' originally 'to hang up,' there is no doubt the proper meaning of *šiḳlu* is 'weight.'

I have an impression that the *manû*, *šiḳlu*, and *biltu* were names of weights long before the ideograms *MA-NA*, *GIN*, and *GUN* were selected to represent them. In that early period they may not have been in a sexagesimal relation. The shekel may not have been just a sixtieth of the mina: and this older condition of things may be the ground for a mina of 50 shekels having survived. It is at least noticeable that, as *MA* does interchange in dialects with *GA*, we may imagine *MA-NA* to have been pronounced *GANA* or *GAN*. The series would then read *GAN*, *GIN*, *GUN*. We may recall how the *GAN-SAR* measures have also the *GAN*, *GIN*, and perhaps there *UḪ-ME-A* was read *GUN*. This hardly allows us to suppose a root *G-N*, from which these names were derived (in Sumerian?). Nor need we suppose that *GAN* was known before *GIN* or *GUN*: but it is true that the mina was the unit, and *GIN* and *GUN* were derived from it. The matter may be a mere coincidence, but suggests artificiality. That *MA-NA* is a pseudo-ideogram is probable, *šaḳâlu* and *abâlu* have a close connection of ideas. I imagine these ideograms are later than the things they stand for: and were applied when the original weights were brought into a sexagesimal relation.

However that may be, all three weights were in use in quite early times and even then were used as money weights: see Meissner, *A. B. P. R.* pp. 93, 146.

When the plurals of these names have to be written there is a marked difference in usage. The plural sign is never used after *MA-NA* or *GUN*, but tolerably often after *GIN*. Now Professor Hilprecht, *B. E. P.*, A. IX. p. 22, shews that the Babylonian scribes employed the sign of the plural after the signs for weights and measures only when the amount was considered as consisting of separate pieces, a parallel to our distinction between the use of 'pence' and 'pennies.' Hence we are entitled to assume that when

this use of the plural sign after *GIN* grew up, the shekel was already in single shekel pieces: at a time when the mina and the talent were still weights, or as we should put it 'lump' sums.

311. The rendering of *GUN* by 'talent' seems to have been deduced by Norris, *Ass. Dic.* p. 94, from a comparison of Sennacherib's Taylor Prism Col. III. l. 34 with the Biblical account in 2 Kings xviii. 14. The Assyrian account puts the amounts at 30 *GUN ḫurâsi* and 800 *GUN kaspi*. The Bible has 30 talents of gold and 300 talents of silver. Some think the Hebrew and Assyrian silver talents were of different weight. But in any case, *GUN* is clearly 'talent.' That it could be read *biltu* is known, see Br. no. 3335, but there is no indication there that this was its reading as a 'weight.' The *GUN* in the places which Brünnow quotes clearly means 'produce' or 'tribute,' cf. specially *bilat kirê*, *bilat eḳli*, 'produce of the garden' or 'field.' Zehnpfund, *B. A. S.* I. p. 495 considers that the point is settled by Strassmaier's Cyr. 236. This however only shews that *biltu* was the name of a definite weight, or quantity, not that it replaces *GUN*, nor that it was 60 minas. This is all that can be deduced from the occurrence of *biltu* in our documents. Thus in no. 108, 1 we have *bi-lat III MA-NA*, which might be 'a *biltu* of three minas,' as well as, or even better than, 'one talent three minas.' When as in 472, R 2, or 498, 9, 10, a *bilat* of precious metal is a penalty to be paid, *bilat* does not necessarily mean 'a talent,' perhaps only a conventional large sum. The parallel cases in which the penalty is a *GUN* only shew that *GUN* may be read *biltu*, not that either means a 'talent.' In no. 218, 2 however *bi-lat erê*, 'a talent of bronze,' occurs as a price. Here even, *biltu* may be some weight different from 60 minas. In other cases, as 303, R 4, the want of context is embarrassing. In no. 619, 19 *bilat šarri* may be a 'tax.'

The Hebrew *kikkar* is said to be for *karkar*, if that be true, it is at least noteworthy that *TIK-BAR* is given by v. R. 16, 21 a, as = *karkara*. It may be that *GUN* was really read by some cognate of *kikkar*.

312. With respect to *MA-NA* it may be noted that the *na* is often omitted, e.g. in our texts in nos. 676, 9, R 11 (bis); 80, 1; in II. R. 53, no. 2; and often in early texts, see *A. B. P. R.* p. 93, where however Meissner recognises an old form of *GIN*. In later texts, *GIN* is often added after fractions of the mina or even after a number of minas, see Dr Peiser, *K. B.* IV. p. 243, note *, as for

example 12 *MA-NA* $\frac{1}{3}$ *GIN* would mean $12\frac{1}{3}$ minas. The *GIN* here is perhaps an abbreviation of *GINA*, meaning 'sterling'; or shews that the mina, or at any rate the fraction of the mina, is to be taken in 'shekels.' This seems to be the idea in the writing *I GUN MA-NA*, in no. 527, which I consider means simply 'one talent.' The *MA-NA* here is perhaps to be read *manû*, 'counted'; or expresses the fact that the talent was reckoned in minas.

Money system.

313. So far as their names went the moneys used were simply weights of metal. No name of money occurs that can be recognised as a distinctively coin name. The documents published in this work, however, make frequent mention of money. We read of loans or advances of money, the penalties imposed for breach of contract are frequently expressed as money. Actual barter or exchange still survived, as it does to this day in England; examples of this kind appear in nos. 252, 318, 385, 492. No one can read these documents, however, without recognising an exact money system: only the names of the moneys are the same as those of their weights. A mina of silver, or a shekel of gold, may be used in stating prices, but we are only in a position as yet to state the weight of silver or gold in those prices.

In our period the same scale also applies to money as to weight. A mina of silver or of gold had 60 shekels of the same metal: and in both cases 60 minas formed a talent. I can find no trace anywhere of a silver mina of 50 silver shekels. When the metals began to be coined, it is not unlikely that a mina of silver would only serve to make about 50 shekel coins, the remaining sixth being lost in the process, or forming the silversmith's remuneration. But I doubt very much whether the 50 silver shekels ever weighed the same as a mina of silver: though in virtue of the extra labour bestowed on them, at the current market rate of such labour, they would probably always buy a mina of silver bullion.

In the contracts published by Strassmaier we have somewhat often an amount of the precious metal given to a smith, *ana pitiḳu*, which we may perhaps render 'to coin.' I do not imagine that the smith subjected the metal to all that is implied in the process of 'coining' now; but since prices are, at the same epoch, stated in money that was *ina I GIN pitḳa*, we may assume that whatever

process was implied in *pitḳa*, it was a step in the direction of coinage, and at any rate resulted in the production of separate shekel pieces. Now the loss to the owner by this process is stated. In Nbd. 598, 25 minas 22 shekels of silver were given *ana pitiḳu*, the amount was 'diminished,' *indaṭu*, by $\frac{1}{2}$ mina 5 shekels. Hence the loss on 1522 shekels was 35 shekels: or about 2·2 per cent. So, in the case of Nbd. 119, the loss on $44\frac{1}{2}$ minas of silver seems to be 1 mina, or again about 2·2 per cent. The process may have consisted merely in forming the metal into a plate, divided by grooves into a number of squares or rectangles, each of which when broken off would be of definite size and weight.

314. The difference between the light and heavy standards of weight extended to their use for weighing bullion. Prices are accordingly stated in minas or shekels, 'of the king,' or 'of the country' or in Carchemish standard. Whether, when a Carchemish mina had to be paid, it was allowed to be paid in Assyrian heavy shekels does not appear. If a Carchemish mina was lent, it is stipulated that a Carchemish mina shall be repaid. Receipts for payment are too few for us to expect to find an example of repayment in a different unit. All we can be sure of is that prices shew an ordinary Assyrian mina to be worth about twice as much as a Carchemish mina.

315. The metals in use for paying sums due were 'gold,' *ḫurâṣu*; 'silver,' *kaspu*; and 'bronze,' *êrû*. These metals are always denoted by their ideograms in stating prices.

Gold, *ḫu-ra-ṣu*, ideogram, *AZAG-GI*, read *GUŠKIN*, is very frequently named in the penalties attached to a breach of contract, and large sums, up to two talents of gold in no. 376, R 6, are mentioned. These forfeits were to be paid to the gods, but we have no evidence in our documents of their being exacted and I regard them as mere deterrent threats. The existence of goldsmiths, see § 199, and the mention of gold articles in no. 645, substantiate the use of gold in the arts. There are, however, no prices given in gold, which makes it difficult to estimate its relative value to silver at this period. Very many articles made of gold are to be found named in the 'lists of objects,' e.g. K 916, 4750, &c. and the payment of sums of gold is recorded in K 956 &c.

Silver, *kas-pu*, ideogram, *AZAG-UD*, read *KU-BABBAR*, occurs not only in the penalties, side by side with gold, but usually in prices. In fact it was the chief medium of exchange. The word *kaspu* seems

to have been derived from a root *kasâpu* meaning 'to acquire,' and so had the meaning of 'wealth' or 'money' before it became definitely attached to 'silver.' The other name for 'silver,' *ṣarpu*, does not seem to occur in our documents, it originally means 'pure,' that is, 'refined,' silver. The verb *ṣarâpu* seems specially to imply metallurgical operations, and *ṣârapu* was the name of the 'goldsmith,' who of course also worked in silver. When the price has been stated, as so much silver, *KU-BABBAR*, it is often again referred to as the *kaspu* paid. In such cases we might be tempted to render it by 'silver' again. But even when the price has been stated as so much 'bronze' it is referred to as the *kas-pu* paid. In view of such cases I am inclined to lay it down as a rule that *KU-BABBAR* is to be read *kaspu*, and rendered 'silver,' but that *kas-pu* is to be rendered 'money' or 'price.' The few cases in which *KU-BABBAR* occurs, outside the statement of prices, also demand the rendering 'silver,' as it is never used in the sense of 'price,' unless that price was paid in silver. The vast preponderance of silver prices and the use of 'silver' as equivalent to 'money' in general point to the conclusion that Assyria was a 'silver country.' The silver shekels were separate shekel pieces, as shewn by the plural sign after them. The silver minas are bullion weights.

Bronze, *erû*, ideogram *ERU*, Br. no. 3786, is always ideographically written. It seems that properly *erû* denotes 'copper' and perhaps always did so, as money. But bronze was certainly in use, as the bronze lion standards and numerous bronze articles from Nineveh shew. The question as to the date, at which the change of usage took place, is discussed by Winckler, *A. F.* I. p. 160 f, and p. 548 f. At our period and probably as early as Adadi-nirari I.'s bronze sword, circ. B.C. 1400, *erû* had come to denote 'bronze,' while *siparru* is the word for 'copper.' The frequent mention of *tin*, *anâku*, proves the existence of means for its manufacture, and later we find that we can fix the proportion in which the blend was made. Thus Nbd. 471 shews that $35\frac{1}{3}$ minas of copper, *siparri*, were combined with 4 minas 5 shekels of tin, giving a ratio of copper to tin of 7·355 to 1: while that usual in the arts is 7·33 to 1.

Prices stated in bronze usually take a plural sign after *ERU*. The shekel of bronze does not occur in our texts. This then speaks for the existence of separate bronze mina pieces. I think that when bronze was first used in exchange, it would not be in the form of bullion but of bronze vessels, the value of which would be estimated

rather by their capacity than their weight. If then bronze money ever had a separate set of names from other money, one would expect to find the names recalling measures rather than weights. Now we have a *ḲA* of bronze named in nos. 95, 127, &c., apparently as a subdivision of the mina of bronze, and *ḲA* is also a grain measure. Is it too much to suppose, that, as Assyria seems to have had separate shekel pieces for silver and separate minas for copper, the mina was first a copper weight built up on the *ḲA* and then became a weight from an original measure of capacity? If *manû* be really derived from *manû*, 'to count,' the fact that minas were counted while shekels were weighed seems to point to the mina being an article, copper bowl perhaps, rather than a lump of metal.

316. What may have been the relation in value between gold and silver at our epoch there seems no data to settle. In the 11th year of Nabonidus, however, gold was reckoned worth 12 times as much as silver, provided of course that the gold and silver shekels still weighed the same; see *K. B.* IV. p. 243. Herodotus, III. 89, gave the value of gold as $13\frac{1}{3}$ times that of silver. Professor Oppert deduced the ratio 12 to 1 from the penalties payable to the gods, expressed in both metals, but G. Smith, *Z. Ae. S.* 1872, p. 112, formally disproved that view of the data. The price lists indicate that silver was worth from 100 to 120 times as much as bronze: and also in some cases perhaps 180 times as much. In the statement of the penalties to be paid to the gods, as guardians of the right, for breach of contract, or the fines payable in like case to public officials, Dr Oppert found the grounds for his ratio of value given above. The penalty is usually expressed as *X* minas of gold and *Y* minas of silver. When this was first noted, it was assumed that the amounts were alternative and would give a gold-silver ratio, viz. *X*: *Y*. But there is no constant or nearly constant ratio. Nor have the amounts any ascertainable relation to the price paid. I have however drawn up a table of prices and penalties for a comparison. It may serve some purpose which I do not foresee at present.

317. In these penalties a very common epithet of silver is written with the ideogram *LUḪ*, followed by the phonetic complement *u* or *ú*. A purely phonetic spelling does not occur, unless we ventured to read *laḫû*. It has been proposed to read *miṣû* and render 'mixed,' 'alloyed'; cf. the use of *mazû* in this sense. If this were correct, perhaps we may see in it electron or λευκὸς χρυσός, the

mixed gold and silver of the Lydian coins. It seems best however to read *LUḤ* as *misû*, literally 'washed,' and render 'pure' or 'refined.' The reference seems less to its value, than to its freshness from wear and soil. It was to be clean and bright as became an offering to the gods. The preference for new silver for Easter offerings and Maundy money is a parallel.

Another epithet of silver, which occurs in no. 213, is *kînu*. I regard this as the phonetic form of the very common *GI-NA* of the Babylonian texts. It means in that case money which has been 'standardised,' or 'verified'; Delitzsch, *H. W. B.* p. 202, gives '*normiert*,' '*justiert*.' For most purposes we might render by 'sterling.'

In a similar way gold is dignified by the term *sakru*. In a passage occurring in a letter, K 538, l. 18, *H. A. B. L.* p. 104, we have mention of *III GUN ḫurâṣi sakru IV GUN ḫurâṣi la sakru*, 'three talents of *sakru* gold, four talents of gold not *sakru*.' As all was to be used for an image of gold, perhaps we may have here 'beaten' gold or gold plates. At any rate the probability is that *sakru* indicates the result of some process which increased the value of gold. The *sakru* gold was in higher estimation than *la sakru*. We could of course read *sagru*, and in either case compare Heb. סגור, 'massive,' 'solid,' if that is the real meaning. See Delitzsch, *H. W. B.* p. 499 b, Cheyne, *P. S. B. A.* xxi. p. 246.

318. In the penalties we often have mention of tin, *anâku*, ideog. *AN-NA*. It does not occur as money. The amount mentioned is never less than one talent, which points to the existence of plenty of tin. It is never offered to the gods, but only to the *šaknu*, the *bêl paḫâti*, or other government official. It can hardly then have served any other purpose than as a constituent of bronze. Was this manufacture a government monopoly? Even so, it is very singular that gold and silver should not have been paid to government, only tin.

319. What may have been the value of a shekel or mina of silver expressed in modern money is a question that scarcely admits of an answer. The values set down by Professor Oppert, Professor Sayce and after them by others, appear to be mere bullion values, another way of stating how much of the precious metal was contained in a shekel or mina. They appear based on a calculation of the present day value of an ascertained weight of metal. To say that a shekel of silver was worth about 3*s.* or a mina of silver about £9,

conveys no meaning to my mind. It omits all consideration of the purchasing power of a sovereign in different ages and circumstances.

The prices paid for different commodities give us the purchasing value of silver or copper in terms of the property concerned. Thus a mina of silver, Assyrian money, would buy a couple of ordinary domestic slaves or one skilled artisan. You would pay three minas for a fine horse. What £9 English money would do in these ways now it is hard to say; certainly not procure the services of a pair of English domestics on the same terms as an Assyrian got his slaves.

320. The question whether the Assyrians actually coined money was raised by me in the *Expositor*, Nov. 1899. The answer has been given in the negative, as a rule, though here and there scholars have shewn a tendency to admit the possibility in a modified way. Thus Dr Peiser, in *K. B.* IV. p. 127, etc., used the word *Münzfuss* in such a way as to excite Professor Oppert's indignation in *Z. A.* XIII. 259 f.

The arguments against the opinion that the Assyrians did coin money are apparently strong. Ancient historians, Herodotus, I. 94, for example, are positive that the Lydians were the first to coin money. There is no Assyrian coin producible at present. There is no mention of a coin in any Assyrian document yet published. These might seem unanswerable arguments, if it were certain that they really bore on the question.

321. It does not seem clear that Herodotus meant that the Lydians were the first to use coins, only that they were the first to recognise the commercial value of the invention and put it upon a systematic and regular basis. But at any rate the Lydians did coin money. That involves some deductions. Lydia had two standards, one to suit the eastern trade with Babylonia, the other for the western trade with the coast of Asia Minor.

The Lydian coins then certainly found their way into Babylonian markets. They were adjusted to suit that market. This could not have taken place without their finding their way into Assyria also, unless indeed Assyria was no longer in political existence. The date of the invention of the Lydian coinage has been put as early as B.C. 700. It cannot have been later than the end of the 7th century B.C., or the claim to priority on the part of Lydia must be given up. Pheidon coined silver at Aegina, and he began to reign before the century was out. Even if Nineveh had already fallen, coins must

have been known in Babylonia early in the 6th century B.C. On these dates see Ridgeway, *O. C. W. S.*, p. 212.

This conclusion destroys the force of the argument that we cannot find any coin names in Assyrian documents. For though Lydian coins were known in Babylonia, we can find no mention of them in the almost numberless commercial documents of the 6th century B.C. True there is said to be a mention of *dariku*, as a piece of gold, identified by some with the daric. This is probably an error, for the *dariku* usually occurring is 'a pot' or measure: and has the determinative of pots, *karpat*, put before it. See Muss-Arnolt, *sub dariku*, where a wrong reference to Nbd. 1013 is given. G. Bertin, *P. S. B. A.* 1883—4, p. 87 f, affirmed that he had read the word on a contract of Nabonidus, dated in his 12th year, five years before the conquest of Babylon by Cyrus. He accordingly wondered that it should ever have been connected with the name of Darius. He was of opinion that though properly a measure, it came, like 'pound,' to be used as a money term. Professor Hoffmann, *Z. A.* II. p. 48, examines the relation of the name daric to Darius and shews how difficult it is to admit the derivation. At any rate the passages known to me do not give any example of its use as a coin name.

In the Macedonian period however we have real coins named, staters appear as *istatiranu*, *K. B.* IV. p. 316.

322. The absence of any mention of coins, in Babylonian documents, at a time when they must certainly have been known and in use, seems to me to admit of but one explanation. The names by which these coins were then and there known must have been the same as the names of the weights of metal they contained. A shekel of silver was still called a 'shekel,' now that it was a coin, as it had been while merely a weight. The change in shape and character in passing from an ingot to a coin did not call for a new name. Especially would this be true in stating prices; the name of the coin which is an English 'pound' might change, being called a 'sovereign,' but prices would still be reckoned in 'pounds.' It is only when the new coin has also a different value from the old money that a fresh name is really needed or would find its way into price lists. Hence the absence of coin names from the Assyrian and Babylonian price lists proves nothing as to the existence of coins, only assures us that if really in use, they were called mina, shekel, or talent, as the weights had been. This also applies to the

Lydian coins. If one of them, worth a shekel, were in use in Assyria, we have no reason to expect any other name than shekel applied to it. On the other hand if a foreign money obtains circulation and its name be the same as that of some native money of different value, it will need specification. The Carchemish mina is a case in point, no statement in price would be accurate unless that mina was specified, if intended. Even then the name remains, it is a mina still.

323. The existence of Lydian coinage further involves the probability that it was in use in Assyria before the end of the 7th century B.C. The mention of such coins is not to be expected unless they distinctly differed in weight and value from native money. The existence of native coins even is not negatived by their not being mentioned. The Assyrians may have coined in imitation of the Lydians, or may have been the first to use coins. Our documents are not histories, nor guide-books, still less treatises on commercial subjects, but contain mere statements of prices. If, as is probable, the coins in use were minas and shekels, it is unreasonable to expect to find any other names for them.

324. Lydia was not so far removed from Assyrian influence but that a rapid exchange of ideas must have taken place. Gyges opened friendly relations with Ašurbanipal. If Lydia had no coins, they may have borrowed the idea and standard from Assyria. This standard bore a simple relation to that of Babylonia. The Lydian native mina was 'heavy,' where could it have come from, if not Assyria? The Babylonian and Syrian minas were both 'light.'

325. The Assyrians certainly used separate pieces of metal of uniform size and weight as money. This applies to silver shekels and bronze minas. Hence we know that shekels were 'counted' though it does not follow they were 'coined.' But the use of the plural sign after shekels may imply that they were more than mere separate pieces. For we can hardly doubt that separate mina pieces also existed, yet the plural sign is not used after silver minas. The plural sign may have marked that the silver shekels were 'coins,' while the silver minas, though separate, still remained ingots.

326. We may now search for some hint as to whether the separate shekels or minas were in any sense 'coins.' Separate ingots or blocks of metal stamped with their value or weight we may hesitate to call coins. The bronze lions are not coins. A cake of metal, rectangular like the Japanese *itzebu*, stamped with its

value and some coin device is perhaps to be admitted. Probably Herodotus would not have admitted such as coins. If they had been circular or oval they would be as much coins as the early Lydian issues.

Let us examine what separate gold or silver pieces are referred to in our documents. We know that the precious metals were cast into ingots, and we can gather the shape of some of these ingots. We read of *libnâti*, literally 'bricks,' of gold, 79–7–8, 265, see Cata. p. 1721. We read also of *lišâni*, 'wedges,' literally 'tongues,' Sm. 1341, Cata. p. 1480. At this time probably gold was only used as money in such shapes. But these were not used as money, and we may argue that the silver money pieces were at any rate not 'bricks' nor 'wedges.' If they were roughly rounded cakes of metal and stamped with value or weight and a rudimentary coin device then they were coins.

327. Such a treatment of cakes of metal was well within Assyrian powers. The use of stamps for impressing an inscription on a brick had long been known. The use of seal impressions on clay tablets proves the possession of the artistic skill necessary to engrave such a stamp as was needed. The seals, it is true, are usually engraven on stone, which would not serve to stamp metal; but the Assyrians also cut inscriptions on metal, bronze at any rate. They might have cut the figure of an animal on a metal punch and used it to impress the device on a cake of metal. The early Lydian coins were stamped in that way.

The close connection between seals and coins is further borne out by the resemblance between the designs on the coins of the early Persian kings and the royal seal which figures on so many documents through the Assyrian period. Is it too much to suppose that this very royal seal of Assyria came into the possession of the Persian monarchs and a stamp copied from it was used for the impress on their coins? Nay, is it not possible that the same coin device had already been used in Assyria?

328. We may obtain suggestions also from the condition of affairs in Syria. It is probable that Syrian, Aramaic, traders formed the chief carriers of the trade between Lydia and Babylonia. If Lydia invented coins the Syrians must have been influenced as soon as any one. The land of the 'Hittites' certainly possessed all the means necessary for the production of a coin. The so-called 'boss' of Tarkondemos bears an incuse inscription in both Hittite and

cuneiform characters, as well as a royal figure. If it had weighed an exact number of shekels, or had borne an indication of its value, we must have called it a coin. It has to be dated before the fall of the Hittite empire.

Now we have seen that Carchemish, itself a Hittite capital, played a very important part in Assyrian commerce. This city lost its independence in B.C. 717 and became absorbed in the Assyrian empire. Yet its standard shekel and mina continued in use till the fall of that empire. Had those Carchemish shekels and minas been mere bullion it is strange that they should not have been simply reweighed in Assyrian scales. As the Carchemish mina weighed just half an Assyrian one, it would surely have merely passed as a 'half mina' in Assyria. The only reason that I can think of, to prevent that, is that each Carchemish mina was marked 'one mina,' and in such a way that it might be mistaken for an Assyrian mina. This can hardly have been secured merely by its shape, it must have borne some coin device and been named a mina visibly, otherwise it could not have escaped being put in the balances and at once called a 'half mina.'

329. We have to account for this Carchemish mina being so often used. For some reason it was very popular. There must have been some special convenience in its use. Of course, if the transactions were between Assyrians on the one side and Carchemish traders on the other, the latter might be responsible for the preference. But between Assyrians it is hard to see why they should use Carchemish mina weights when they had their own, unless there was some superior convenience in using the former. If it was more of a coin than their own money, there is reason enough. Admit that the Carchemish mina was a coin, and then our documents mention coins. They do so in precisely the same terms as they use of Assyrian money. They would use the same terms of Lydian coins, only calling them Lydian, if they were of a different standard. There is therefore nothing to exclude the idea of there being Assyrian coins also. The preference for one coin over another, in a land of mixed currency, is a matter of convenience, depending on what the buyer has by him. Thus far I hold that there is no evidence against, but rather a presumption in favour of, Assyria and Syria as well as Lydia possessing rude coins in the 7th century B.C.

330. The last piece of negative evidence, that no Assyrian coin has yet come to Europe, does not seem very formidable. Any day

it may cease to be true. It may not be true now. Is it certain that all the so-called Lydian and Persian coins are correctly ascribed? While it lasts, however, we have no proof of an Assyrian coinage. That however is easily over-estimated. Surely no one can doubt that at least separate mina and shekel pieces were used in Assyria. Yet I doubt if one such is producible. The reason is obvious. Assyria has been little explored. The explorations were naturally confined to palaces and temples. Of all places these treasure-houses would have been most thoroughly plundered originally, and who can tell how many treasure-seekers have ransacked them since? Buried private houses may have preserved their secret hoards, palace treasuries would be found at once. How thoroughly the Assyrian palaces were swept of all precious metals is shewn by the singularly small amount of gold and silver among the Assyrian antiquities. We cannot doubt that once Nineveh was richly stored with all manner of gold and silver vessels, yet hardly a trace has come to Europe. Of course the personal cupidity of the native digger may be a factor in this result. Further exploration and the recovery of some undoubted shekel of some kind, likely to have been used as money, will, if of undoubted date, settle some points. At present, I am inclined to think the Assyrians did coin at least silver shekels.

331. The use of 'ring' money in early times in Babylonia has been made very probable by Meissner: *A. B. P. R.* p. 147. It is not likely that the phrases there given, 1 *šiḳlu kaspu unkum*, $\frac{1}{3}$ *šiklu kaspi unkim*, are meant to denote silver rings used in barter merely. The Egyptian monuments shew money in rings as tribute from Babylon, Lepsius, *Denkmäler*, III. 39, no. 3. The custom appears to have lasted till the later Babylonian times, see Nbd. 537, 9, *kaspu unḳa*, Nbd. 206, 2, *siparru unḳatu*. This may have been a mere survival, as the solitary examples of barter also were. The rings could be counted of course, but they do not seem to have been of uniform size. The use of mere blocks of metal seems a retrograde step from 'ring' money.

332. The use of flat plates or 'leaves' of metal is perhaps the origin of *GIN* as a money name: though the relation of *GIN* to *GUN*, *GAN*, etc., in the weights and measures was probably the determining cause. Whether *kappi*, or 'wings,' of silver, were plates of metal likely to be used as money is not easy to decide. They occur in large numbers, as many as a thousand at a time.

333. At the time when coins were undoubtedly in general use

in the East, their names are nevertheless of a distinctly Semitic cast. Even such a purely Greek word as στατὴρ presents itself in Syria, Palestine and Babylonia in a Semitic dress. It has been usual to assume that these names are merely Semitised forms of stater, 'loan-words' in fact, and that stater is the original form of them. There are several objections to this view. As a purely Greek word στατὴρ does not appear till about 700 B.C. It was not then a coin name, definitely fixed to any particular coin, but was used vaguely for several pieces of money. To describe a coin properly, an additional specification was necessary, as for example, στατῆρες Δαρεικοί was the proper name for the Persian gold Darics. Leaving on one side the question whether Daric is a derivative from Darius, we merely note that στατὴρ alone is not the full coin name. That later it may have been used in that way does not prove anything against the surmise, that originally, stater was not invented as a name for the newly invented thing, 'coin,' but may have attached itself to the thing from causes yet to seek. Coins may have been in use some time before they were called staters, and if so, it had no special claim to be the one word imported from the west with 'coins.' The Syrian name for the coin which the Greeks call stater is *estîrâ*: ܐܣܛܝܪܐ Rab. Heb. אִסְתִּירָא. Now although it has usually been assumed that this is a Semitised form of stater, it must be noted that the correspondence is not very close. In the first place, the second '*t*' of *stater* is absent; and in the second place, one expects a Greek '*st*' to appear as '*sṭ*' not as '*st*.' Compare, for example, the rendering of *strategos*, by אסטרטג. On the other hand *estîrâ* is precisely the form, in which the Assyrian Ishtar appears in the Syriac and Rabbinic writings. That the Syrians and Jews, instead of Semitising stater in their usual manner, should call it an Ištar, or Esther, outright, seems to demand more explanation than mere similarity of sound.

334. Now assuming that money was originally coined in Nineveh, what we know from the analogy of early Greek coinages would lead us to expect that some early coin would bear the head or figure of the city goddess Ištar. Such coins would of course soon be called 'Ištars.' The name might easily survive in Syria, and when the stater came into use, the old name would readily be applied to the new coin, all the more readily if its value was about the same, but easily enough, even if all the old coins had

not disappeared. It is far more likely that the Syrians should use an old name to render a somewhat similar foreign one than that they should alter stater, at once or gradually, to Esther, merely as a matter of assonance. In Babylon, where the Assyrian Ištar coin may never have become established, a much closer rendering of stater appears. They called the stater, *istatirranu* in the time of Antiochus III. (see *K. B.* IV. p. 316). Here at any rate, both the *t's* of stater appear. Even here, however, we may note that among the neighbouring nations the name of Ishtar appears with a second *t*; for example, Ashtoreth of the Sidonians, Ἀστάρτη, as the Greeks rendered that undoubtedly Semitic name. Hence even *istatirranu* may really be derived from some Ištar name, rather than from a Greek 'stater' directly. On the other hand the previous existence of στατῆρ in Greek might easily induce the Greeks to use it to render a name which was originally Semitic. In other words, instead of the Semitic names of the stater being borrowed from the Greek, the borrowing may have been on the other side; and it must be remembered, in any case, that as a coin name, stater was first used by the Greeks to denote what was at any rate an Oriental money value.

335. I am not concerned to prove that the coins originally called 'Ištars' were the same as those called staters, but there is distinct evidence that Ištar was at one time used as a coin name, and it is far more reasonable to connect that use with a coin bearing the image of Ištar, than to adopt the assumption that it is a Semitised form of stater, in defiance of all analogy. For odd as Western scholars may represent the Eastern mind to be, there is some method in its seeming madness, and in our case the method would have resulted in *eṣṭaṭêr(a)* rather than *estîrâ*. The long *â* at the end of this Syrian word probably plays the same part as does the *eth* in the Phoenician from Ashtoreth and marks the female nature of the divinity Ištar, whose Assyrian name is, as often as not, regarded as masculine.

336. All the above might have been said if no Assyrian contracts had ever been published. They however contribute some further weighty considerations. In our contracts we often find the money advanced called the *ŠAK-MEŠ* of Ištar, e.g. nos. 38, 2 : 39, 2 : 40, 1 : 41, 3 : 44, 2 : 45, 1 : 46, 1 : 50, 1 : 108, 2. This expression is not to be confounded with *ŠAK-du*, which is probably to be read *ḳaḳḳadu* and rendered, 'sum,' 'capital.' In nos. 38 and

39, the money is said to be both *ŠAK-MEŠ*, and *ŠAK-du*. Now *ŠAK* means 'a head,' and *ŠAK-MEŠ ša Ištar* can hardly mean anything else than *rêšê ša Ištar*, 'heads of Ištar.' In what sense money could be so termed, unless when speaking of coins, stamped with 'a head of Ištar,' is hard to imagine. That the goddess is sometimes said to be Ištar of Nineveh, sometimes Ištar of Arbela, need cause no misgivings. The difference between the goddesses is probably rather a construction put by modern scholars on the terms used by Assyrian scribes than any facial expression that would appear on an early coin. When an Assyrian was a devotee of Ištar of Arbela he would probably regard the head on his coin as that of his goddess, while the same head in the hands of another man would remind him of Ištar of Nineveh. More serious looks the variant, in no. 108, where we seem to have *ŠAK-MEŠ ša Ašur*: but on this damaged text the reading Ašur is rather to be regarded as the end of *MEŠ* followed by *ša*. The trace of *ilu* at the end of the line may be part of Ištar's name. On no. 45, the reading *ŠAK-MEŠ* is uncertain and the name of Ištar may have been written on the lost portion of the tablet.

337. At any rate, this fact remains to be dealt with, that as early as 676 B.C. (no. 40) and often later, a term is applied in Nineveh to sums of money, which could mean 'heads of Ištar,' which cannot simply mean 'money,' 'sum' or capital,' and which must be so interpreted as not to make the sum of money one for a special purpose nor to mark its ownership. When, for example, the scribe wishes to further particularise, as in no. 44, he calls the sum not only *ŠAK-MEŠ ša Ištar* but also *GAR-MEŠ bît-ili* which may be read *šiknî bît-ili* and rendered 'the produce or production of the temple.' If this does not exactly prove the temple to be the 'mint,' and I admit it looks very much as if it were so, yet at any rate the money was in some way the 'property' of the temple. This cannot therefore be also intended by the term *ŠAK-MEŠ ša Ištar*. Professor Dr Jensen, to whom I owe the suggestions which are embodied in this recovery of the earliest Assyrian coin type, says that he now regards the Ištar head as absolutely certain to have been a coin in use in Nineveh. It is not, however, an easy matter to identify this coin with other known money pieces. Shekels and minas, silver and bronze, are named in connection with the *ŠAK-MEŠ ša Ištar*. Once at least the mina is said to be of the Carchemish standard. I take it, that the sums of money are

expressed in the old money-weight terms, with the additional stipulation that they were to be paid in 'Ištar heads.' The shekel is the most likely separate silver piece. We may perhaps assume that an 'Ištar head' was a silver shekel.

338. The bronze mina was also a separate piece, and there may have been more than one 'Ištar' coin. The head may have appeared on the bronze mina as well as on the silver shekel. On the other hand, as bronze probably had a definite and well understood ratio of value to silver, a sum of bronze advanced might quite well be ordered to be repaid in silver shekels, 'Ištar-heads': or *vice-versâ* a sum of silver might be directed to be paid in bronze minas, 'Ištar-heads.' The addition of the stipulation for 'Ištar-heads' would be intended to encourage the circulation of the new coin and also doubtless to guard against the disputes always attending bullion payments among primitive peoples.

It would be interesting to find other references to this 'Ištar-head' as a coin. The often occurring ideogram for *nindabê*, namely the plural of a sign which can be read Ištar, which has often been read *Ištarâti* or 'Ištars,' is now generally acknowledged to mean 'offerings.' The exact nature of these 'offerings' is obscure, see Del. *H. W. B.* p. 448: but there is absolutely nothing to connect these seeming 'Ištars' with the 'Ištar-heads.' There is however some probability that when a *nindabu*, or 'freewill offering,' was made to Ištar, it would take the customary form of an Ištar coin.

339. The next suggestion of a coin device that I have to submit arises from a somewhat doubtful reading in no. 492, Obv. 4. There the price is given as 'twenty minas of copper' (or bronze) *purîmê aki šabri* (?). The characters at the end of the line look like what I give in the text, but they may be *PA-AL*, which is read *šabru*. The sign *e*, which precedes *purîmê*, may be a phonetic complement to the plural of *êrû*, indicating that we are to read *êrê*. The horizontal strokes are however very fine, and in place of *e* we may read II., i.e. the numeral 'two.' I at first took this to mean that the animals, called *purîmê*, and usually rendered 'wild asses,' were to be regarded, either as part of the price, or as an alternative to 'cash.' In either case, however, one would expect a conjunction *u*, meaning 'and,' or 'or.' In spite of this, some may say, it certainly means that the asses are to be an equivalent for part or all of the price.

The uncertainty about the nature of the animal is very perplexing.

All that the ideogram really demands is an 'animal of the desert,' or 'of the steppe.' Even if it be certain that *purîmê* is its reading in some places, it does not seem to me to be clear that it was always so read. Delitzsch, *H. W. B.* p. 542, seems to think it may include wild animals of other sorts: 'gazelles' being specially likely. The idea of 'swift motion' underlies most of the comparisons.

Now an alternative payment in wild animals of any kind seems to me very unlikely indeed. What proof is there that 'wild asses' or 'gazelles' were likely objects of barter in Assyria? If the sign *e* be really the numeral 'two,' we see that two of these animals are set down, either as equivalent to twenty minas of bronze or as an addition to that price. In the former case they would not be worth very much, and whatever use could they serve?

340. The case is very different if *purîmu* was the name of a coin, with the figure of a wild ass, gazelle, or some such swiftly running, 'plain or steppe dwelling' animal, stamped upon it. The first coins of Lydia are said to be stamped with the figure of a *fox*. Is this animal correctly identified? Some early coins in Greece bear the figure of a 'hare,' Ridgeway, p. 336, Rhegium and Messana. I do not see why the 'hare' should not be the animal of the 'steppe' meant by the ideogram. *KA-EDIN-NA* is one ideogram for the 'hare,' *annabu*. That *imeru* means an 'ass' I admit, but as a determinative it is applied to camels and sheep, and is therefore allowed to mean 'animal' in general. I imagine that, if the Lydian 'fox' should turn out to be really a 'hare,' or still better a gazelle, that coin would be well described by our scribe. For, as in the similar case of the 'ox coin,' a coin bearing a figure of a 'gazelle,' would certainly be called a 'gazelle.' It is not necessary, for my argument, that this text should be admitted to mention a Lydian 'fox' or 'gazelle' coin. The nature of the animal and the mint of the coin concern me not. I only contend that in the mention of twenty minas of bronze, the addition of a 'coin' name is more reasonably to be expected than an alternative in 'wild animals' of any sort.

341. The phrase *aki šabrî* might throw some light upon the point. Delitzsch, *H. W. B.* p. 639 takes the *šabrû*, which is given in the syllabary as the equivalent of *PA-AL*, to be some 'occupation,' or 'business.' He thinks that 'magician' or 'seer' would suit one passage, where *šabru* occurs. I do not see how it could suit this place on any supposition. We have however to remember that

PA-AL may have meant other things beside *šabrû*, that there is no *amêl* here, and lastly that the text may not give *PA-AL* at all. So I can get no light on this point from these doubtful characters. As I elsewhere shew, *šabâru* (or is it *šapâru*?) in some of its derivatives denotes 'a pledge,' and a female is said, in no. 72, 5, to be *ana šabri*, 'as a pledge.' If then *šabru* is the correct reading here, *aki šabri* would seem to point to the *purîmê* being a 'pledge' for the bronze. If they were really coins, the word instead of 'pledge' may only mean 'as an equivalent.'

342. The many other Syrian and Jewish names for money shew a Semitic rather than a borrowed origin. Not to mention the *manû*, Greek μνᾶ, perhaps from *manû*, 'to count,' 'number,' 'reckon'; the shekel, from *šaḳâlu*, 'to weigh'; we have such terms as *parṣu*, the 'half mina,' from *parâṣu*, 'to divide,' and *zûzu*, a small coin, from *zâzu*, 'to divide.' Later we have *girû* (Str. Nbd. 195, 258, 271, 402), as part of the shekel, perhaps the 20th, cf. Hebrew גֵּרָה. Further the Hebrew name for talent, כִּכָּר, corresponds to a Babylonian word, which certainly refers to the shape of the mass of the precious metal, as do *libittu* noted above, and *bidarru*, which probably originally meant a 'cucumber' or 'gherkin.' Now these names of money shew no sign of foreign influence either in root or form. That they were names for coins, when first brought into use, is not likely. That they became the names of coins we have distinct evidence from their later usage. The phenomenon to be accounted for is this. Assuming coinage a non-Semitic invention, how came the Semites to have a purely Semitic series of coin names?

343. The first point of my argument from them is that when coins came into use among the Semitic peoples, the names given them were not of foreign stamp, but simply those which had already long denoted bullion weights of approximately the same value. Hence the date at which coins first became known in the East cannot be determined by the terms in which prices are expressed. Coins might long have been used before any mention of them is made, which we could distinguish from the old system of money nomenclature. A second point is of less value, but must not be overlooked. These money names, finally becoming 'coin' names, are not only Semitic, but Assyrian. Had the particular money units really arisen in the West, their names, even if Semitic or Semitised, would hardly occur as money terms before the fall of Nineveh. Further, if coinage

spread from Lydia into Assyria one would expect strange and non-Semitic terms to appear in our contracts, on the analogy of *istatirranu*, for stater, later in Babylon. That the Syrians found *estîrâ* so handy and ready for use as a rendering for στατήρ, and that all these money terms, and later coin names, already occur at least as money terms in Assyria, does not indeed prove the use of coins, but does remove some of the presumption against their origin in that land.

344. Dr Jensen has pointed out to me the extreme significance, for the money question, of K 4380, published *V. R.* 29, no. 5. The obverse of this tablet, K 4377, is published in II. *R.* 29, no. 5. It is one of those tablets which Dr Bezold calls 'lists of Assyrian words with similar meanings,' because, while in the first column a list of Semitic words is given, in the second column occurs only a series of marks of repetition, which we may take for 'ditto' signs. Without insisting on the exact equivalence of such terms, we may fairly assume that, in Assyrian (or Babylonian) usage, the words had a closely related sense or application.

The first word preserved in this list is *misû*, which we have seen to be an epithet of silver and to mean 'pure, free from dross or tarnish.' The next word is *dalbu*, which may mean a 'runner,' as the word seems to occur as a synonym of *alâku* (see Del. *H. W. B.* sub *dalâbu* II.). We may also think of the Heb. דֶּלֶף, 'a rain-drop.' The connecting idea with the last can hardly be that of 'brightness,' but if we preserve the notion of incessant motion, seen also in the Syriac ܙܠܦܐ and Ethiopic ዝሉፍ we may render 'current' vaguely, and in view of the next few similar words think of 'current money.' The next word is *daialum*, which Delitzsch, *H. W. B.* p. 215, does not elucidate much. It cannot however mean anything in this connection but a term expressive of some money characteristic: if we are to attach any value to its being a synonym of the others.

The next word is *arîru*, certainly 'glistening'; then comes *anâku*, obviously the metal 'tin' here. Then there was a break (*ḫibi*), in the original tablet, from which the scribe made his copy. The next word is *salla*, or *šalla*, with which we may compare the Syriac ܣܠܥܐ = 'glittering,' also later the name of a small coin. Then follows *zûzu*, from *za'âzu*, 'to divide,' with which we can compare *zûzu*, also in Syriac the name of a coin. Next we have *zalḫu*, on which the scribe notes that it was a word used in the country of *SU-RI* or North Syria, and with which we may compare the Syriac זליחה = '*lamina argentea*.' The next word is *aiaraḫi* in *V. R.* 29, but really

zaraḥi, a word used among the Suti for the same idea as runs through the above nine (see correction in *Z. A.* IV. 18, by Pinches).

The next line commences another group, for in it *za-gi-in* is said to be = *uknu*, and other three Semitic words are given as of similar meaning. It is clear these have nothing to do with our argument, being perhaps various names for 'blue,' the colour of the lapis-lazuli, or *uknu* stone. Our group can hardly have any other idea in common than that of 'money.' While *misû*, *arîru*, *salla* may have the common notion of 'brightness,' or 'glitter,' and this may be a link with *anâku*: neither *dalbu* nor *daialum* could mean that, unless in the remote sense of 'quickness' being akin to 'brightness.' That would however quite break down over *zûzu* and *zalḫu*. The only common idea could be 'money.' This is borne out by the fact that *salla* and *zûzu* are later actually coin names. On this assumption we have to deal with the fact that at least two of the later Syrian coin names actually are found to have been used with respect to money before the fall of Nineveh. They at least did not first come into use for money, on the introduction of coin from the West. They do not prove the existence of coin in Nineveh: but are quite consistent with it.

REGISTER OF TABLETS.

The first column gives the Registration mark of the tablet as entered in the "Catalogue of the Cuneiform tablets in the Kouyunjik Collection of the British Museum," edited by Dr C. Bezold. Of the abbreviations which follow—

A denotes that the tablet is entered in the Catalogue as a list, or enumeration, of 'animals.'

B denotes that the Cuneiform text of the tablet in question is published in the above Catalogue.

Br denotes that the text is published by Dr R. Brünnow in Zeitschrift für Assyriologie, vol. III. 1888, pp. 238 and 414.

C denotes that Dr C. Bezold has called the tablet a 'contract.' If however the Catalogue appends a question mark, uses the words 'probably,' 'apparently,' or otherwise expresses a doubt whether the text is a contract, I print C (?).

Cn denotes that the tablet is entered as a 'list of contributions.'

Cr denotes that the text is published in Assyrian and Babylonian Religious Texts by Dr J. A. Craig.

Ex denotes that the tablet is described in the Catalogue as probably 'items of expenditure.'

H denotes that the tablet is entered in the Catalogue as a 'historical inscription.'

I denotes that the tablet has a royal seal impression.

L denotes that the tablet is entered as a 'legal decision.'

Ln denotes that the text has been published by Lenormant.

Lq denotes that the tablet is entered in the Catalogue as a 'list of liquids.'

M denotes that the Cuneiform text of the tablet is published, partly published or referred to by Dr Br. Meissner in Beiträge zur Assyriologie, vol. II. pp. 565 ff.

N denotes that the tablet is entered in the Catalogue as a list of names.

O denotes that the text is published in transcription in Oppert and Menant's Documents Juridiques.

Ob denotes that the tablet is entered in the Catalogue as a 'list of objects.'

Of denotes that the tablet is entered as a 'list of officials.'

P denotes that the text is published in transcription in Schrader's Keilinschriftliche Bibliothek, vol. IV. by Dr F. E. Peiser.

Pp denotes that the tablet is entered in the Catalogue as a list of 'people,' or 'persons.'

Proc denotes that the text is called a 'proclamation' in the Catalogue.

R denotes that the Cuneiform text is published in the Cuneiform Inscriptions of Western Asia.

Rp denotes that the tablet is entered in the Catalogue as a report.

S denotes that at least extracts from the text are given by Pater J. N. Strassmaier in his Alphabetisches Verzeichniss.

Sm denotes that the text has been published by S. A. Smith.

T denotes that the tablet is entered in the Catalogue as a 'tribute list.'

V denotes that the text is at least partly published in the Corpus Inscriptionum Semiticarum, Pars Sec. Tom. I. fasc. I. by M. de Vogüé.

Ves denotes that the tablet is described as a list, or enumeration, of 'vessels.'

W denotes that the text has been published or referred to by Dr H. Winckler.

Further references and notices of these publications will be given in the comments on the separate texts in the Third Volume.

The figures which follow refer to the number under which the text will be found, not to the page of this book.

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K 409.	C	81
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K 424.	C S	211
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K 427.	C	351
K 428.	C S	312
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K 430.	C O R S	260
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K 435.	C S	345
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K 437.	C S	242
K 438.	C	629
K 439.	C S	474
K 440.	C	680
K 441.	C	400
K 442.	C S	386
K 443.	C	177
K 444.	C S	236
K 445.	C	370
K 446.	C	471
K 447.	C	422
K 448.	C	477
K 449.	C	630
K 450.	C	371
K 451.	C	206
K 452.	C	397
K 453.	C	428
K 454.	C	265
K 455.	C	86
K 456.	C	388
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K 797.	S Ves	1000
K 816.	Ob S	732
K 817.	Note B	990
K 820.	Note	1091
K 827.	Ob	954
K 829.	Cn (?)	950
K 833.	Pp	1099
K 834.	N	894
K 836.	Note Ves	1005
K 837.	Note Ob	1092
K 852.	Note on animals	972
K 857.	A	1132
K 859.	N	825
K 863.	Note B	991
K 880 *a*.	Ob	1006
K 881.	Ob	1024
K 897.	Pp	826
K 911.	C	55
K 916.	Cn Ob	931
K 917.	C	616
K 918.	C	52
K 919.	Cn Ob	1040
K 928.	Ob	1008
K 929.	Note	884
K 936.	Ob	1003
K 947.	Pp	882
K 952.	Ob	988
K 954.	Ob	812

K 956.	Letter	No. 810
K 958.	N Ob	1041
K 968.	A Ob	989
K 975.	N	769
K 976.	C	67
K 977.	C P	42
K 1004.	Rp	778
K 1006.	Ob Ves	1025
K 1014.	Note	756
K 1092.	Note	1133
K 1108.	N Cn	886
K 1114.	Ob Ves	1017
K 1131.	Ob Ves	1007
K 1140.	C (?)	187
K 1145.	Note Ob	757
K 1163.	Note Ob	1031
K 1232.	Note	753
K 1254.	Cn Note	758
K 1255.	Note A Cn	754
K 1260.	Of S	865
K 1265.	Note	759
K 1275.	Ob	861
K 1276.	N Of	851
K 1291.	Ob Ves	1023
K 1295.	B Cn Rp	1100
K 1298.	Ob	1042
K 1319.	Note Rp	1071
K 1337.	C (?)	62
K 1358.	N Cn (?)	872
K 1359.	N Of	857
K 1361.	C	102
K 1378.	C	6
K 1379.	C	57
K 1382.	Cn (?)	675
K 1387.	Ob	1004, 760
K 1391.	A	1134
K 1397.	C S	11
K 1403.	Ob	964
K 1404.	Note	761
K 1416.	Ob	1044
K 1419.	C	400
K 1420.	C	71
K 1421.	C	114
K 1422.	C	97
K 1427.	C	478
K 1429.	C P	20
K 1430.	C	430
K 1431.	N	831
K 1432.	C S	92
K 1434.	C	110
K 1435.	C	334
K 1439.	C	209
K 1440.	C	454
K 1443.	C	344
K 1444.	C	111
K 1445.	C	568
K 1447.	L	418
K 1449.	Cn R	953
K 1450.	A	1035
K 1458.		1101, 674
K 1462.	Ob	No. 1043
K 1465.	C	538
K 1466.	C	267
K 1467.	C	438
K 1468.	C	539
K 1469.	C	217
K 1470.	C	510
K 1472.	C (?)	678
K 1473.	Pp	827
K 1474.	C	204
K 1476.	Note	762
K 1477.	C	637
K 1478.	C	569
K 1479.	C	552
K 1480.	C	558
K 1482.	C	10
K 1483.	C	682
K 1484.	N	873
K 1485.	L (?)	203
K 1486.	L (?)	354
K 1487.	C (?)	690
K 1488.	L (?)	436
K 1489.	C	569
K 1490.	C (?)	369
K 1491.	L (?)	479
K 1492.	C	310
K 1493.	Ob	1075
K 1495.	L (?)	480
K 1497.	C	173
K 1498.	C	288
K 1499.	L	448
K 1502.	(?)	776
K 1503.	C (?)	570
K 1505.	C	322
K 1506.	Ob	1045
K 1507.	C	571
K 1509.	C (?)	553
K 1510.	C (?)	599
K 1511.	C (?)	451
K 1513.	C	241
K 1514.	C	358
K 1515.	C	511
K 1517.	C	600
K 1518.	C	182
K 1520.	A	777
K 1521.	Cn R	919
K 1525.	C	380
K 1531.	Of	867
K 1534.	A	997
K 1537.	Rp	948
K 1548.	A Ob	995
K 1552.	Ob	1101
K 1563.	C	247
K 1564.	C	211
K 1565.	C (?)	559
K 1566.	C (?)	691
K 1567.	C	512
K 1568.	C	309
K 1569.	C	313
K 1570.	C (?)	601

K 1571.	C	No. 449
K 1572.	Pp	877
K 1573.	L	481
K 1574.	C	572
K 1575.	C	95
K 1576.	C	612
K 1577.	Cn	1076
K 1579.	Ob	960
K 1582.	Rp	959
K 1598.	C (?)	681
K 1601.	C	425
K 1602.	C	439
K 1603.	C	337
K 1604.	C	468
K 1605.	C	310
K 1607.	C	442
K 1608 *a*.	C	228
K 1608 *b*.	C	259
K 1617.	C	301
K 1618.	C	513
K 1620 *b*.	Letter R	620
K 1749.	H	741
K 1753.	C (?)	465
K 1755.	(?)	730
K 1759 *a*.	(?)	717
K 1765.	C (?)	465
K 1856.	C	278
K 1858.	C	143
K 1859.	C	413
K 1860.	C	413
K 1863.	Ob Ves	1009
K 1864.	C	482
K 1865.	C (or L)	483
K 1867.	C	140
K 1868.	Ob A	1102
K 1869.	(?)	768
K 1878.	C (?)	461
K 1937.	Note Rp	1082
K 1938.	Ob	933
K 1944 *a*.	A	1135
K 1953.	Note	1070
K 1959.	Cn	1103
K 1960.	(?)	1136
K 1965.	Note Rp	868
K 1975.	Rp	949
K 1988.	A	1104
K 1989.	Insc.	809
K 1990.	C (?)	573
K 1995.	N	852
K 2023.	Ob	1083
K 2120.	C (?)	688
K 2125.	Pp	883
K 2185.	Ob	934
K 2639.	C	654
K 2658.	B	919
K 2696.	M	666
K 2698.	H	740
K 2729.	M P S Proc	646
K 2814.	Rp	734
K 2819.	Date	No. 731
K 2828.	N	718
K 2829.	C P	653
K 2844.	Rp	808
K 3042.	T (?)	1077
K 3061.	Rp (?)	743
K 3146.	H Rp (?)	804
K 3157.	Proc (?) M	664
K 3165.	M	655
K 3167.	Proc (?) M	665
K 3192.	C (?)	710
K 3409.	Insc.	807
K 3438 *b*.	C (?)	715
K 3487.	C	617
K 3491.	C	56
K 3492.	C	146
K 3493.	C	342
K 3494.	C	574
K 3495.	C	396
K 3496.	C	84
K 3497.	C	527
K 3498.	C	193
K 3501.	C	29
K 3502.	N	811
K 3503.	C	46
K 3610.	C	805, 575
K 3721.	C S	311
K 3781 *a*.	I	767
K 3782.	Ob	929
K 3784.	C V	130
K 3789 *a*.	C	73
K 3789 *b*.	C	74
K 4272.	Ob	935
K 4283.	C	576
K 4288.	C	484
K 4289.	Proc M	650
K 4291.	Estates	741
K 4295.	T (?)	813
K 4296.	C	77
K 4297.	Ob	963
K 4298.	Ex	1105
K 4440.	H M	667
K 4467.	H W	809, 714
K 4475.	H	735
K 4491.	Proc M	669
K 4506.	H (?)	736
K 4509.	H (?)	737
K 4672.	Of	838
K 4674.	C	381
K 4675.	Rp (?)	1096
K 4686.	N Cn (?)	899
K 4692.	C	45
K 4705.	C	157
K 4718.	Pp Rp (?)	763
K 4722.	N	874
K 4742.	Cn (?)	823
K 4746.	Pp	661
K 4750.	Ob	936
K 4753.	N	869
K 4761.	Cn (?)	814

K 4769.	N	No. 842
K 4771.	Cn (?)	1106
K 4773.	Cn (?)	927
K 4774.	C	485
K 4783.	Cn (?)	928
K 4791.	Pp	895
K 4797.	Offerings	1073
K 4805.	C	514
K 5184.	Ob	1107
K 5381.	C	305
K 5445.	C	577
K 5499.	N	881
K 5570.	Ob	1056
K 5574.	Of (?)	887
K 5655.	Cn Ob	885
K 5656.	N	App. 5
K 5700.	C	540
K 5707.	C	639
K 5746.	C	466
K 5800.	Pp	896
K 5823.	Cn (?) Rp (?)	923
K 6065.	C P	807, 649
K 6106.	C	610
K 6107.	C	121
K 6223.	H W	807, 649
K 6236.	Cn (?) Pp	741
K 6275.	C (?)	515
K 6323.	Ob	941
K 6332.	H W	650
K 6339.	List	807, 649
K 6360.	C	578
K 6367.	Ob	942
K 7253.	Pp	897
K 7292.	Rp (?)	870
K 7328.	Ob	1072
K 7330.	C	805, 579
K 7341.	Offerings (?)	1027
K 7343.	C	158
K 7357.	L (?)	801, 609
K 7379.	C (?)	804, 441
K 7382.	C (?)	541
K 7385.	Cn (?) Ob	1062
K 7386.	C (?)	542
K 7387.	Of	840
K 7394.	C	543
K 7399.	Cn Rp	783
K 7400.	C	804, 560
K 7401.	C (?)	516
K 7407.	C	322
K 7439.	C (?)	303
K 7444.	Pp	719
K 7481.	C (?)	716
K 7485.	C	689
K 7490.	C	323
K 7499.	N	829
K 7505.	C	638
K 7507.	C	299
K 7512.	C	290
K 7518.	C	580
K 7520.	C	205
K 7524.	Ob	No. 1028
K 7535.	C	581
K 7559.	Cn (?) Ob	1108
K 7682.	C	210
K 7702.	Pp (?)	837
K 8093.	N	855
K 8103.	Ob Pp	815
K 8108.	N	775
K 8135.	Ob	1109
K 8143.	Of	860
K 8247.	Cn	930
K 8358.	Ob	819
K 8363.	List	672
K 8398.	C	469
K 8528.	C V	613
K 8529.	C V	156
K 8709.	N	880
K 8754.	C or L	261
K 8761.	C (?)	662
K 8774.	Ob Pp	986
K 8783.	C	528
K 8822.	Pp	898
K 8835.	Ob	1039
K 8854.	C	517
K 8856.	Pp	807, 692
K 9045.	Ob	1084
K 9053.	Ob	1058
K 9060.	Ob	1110
K 9074.	Birds (?)	1137
K 9086.	Pp	673
K 9119.	Ob	970
K 9162.	Ob	947
K 9185.	Ob	1079
K 9195.	C	486
K 9232.	C	293
K 9544.	Ob	968
K 9591.	N Letter (?)	720
K 9657.	C (?)	659
K 9669.	N offerings	922
K 9740.	C	467
K 9747.	C or L	419
K 9751.	N Ob	946
K 9761.	Ob	1078
K 9772.	N	917
K 9797.	N	741
K 9804.	C	176
K 9858.	Pp	1116
K 9921.	Of	853
K 9984.	Ob	962
K 9996.	Cn	952
K 10032.	H	721
K 10119.	N	899
K 10191.	Exp. hist	962
K 10207.	C (?)	657
K 10317.	Ob	945
K 10329.	Ob	1115
K 10335.	Ob	1039
K 10345.	Pp	746
K 10412.	C	802, 283

K 10422.	Ob	No. 1117
K 10431.	C	807, 663
K 10447.	Ob	914
K 10448.	C	801, 529
K 10451.	Ob Pp	928
K 10470.	Rp (?)	722
K 10474.	C or L	423
K 10488.	C (?)	487
K 10578.	Ob	1085
K 10727.	C (?)	807, 649
K 10745.	C or L	407
K 10816.	C	707
K 10867.	Ob	984
K 11239.	Rp	910
K 11285.	Rp (?)	723
K 11378.	N	876
K 11420.	A	1138
K 11441.	C	803, 399
K 11454.	C	808, 656
K 11458.	N (?)	745
K 11463.	C	803, 488
K 11468.	Rp	955
K 11471.	Ob	1086
K 11559.	Ob	1032
K 11638.	Pp	747
K 11823.	C (?)	713
K 11865.	Ob N	864
K 11866.	N Of	862
K 11872.	Ob	975
K 11898.	Of	861, 772
K 11914.	Ob	939
K 11937.	N	741
K 11941.	Ob	820
K 11955.	Pp	1046
K 11960.	C	289
K 12057.	Ob	1087
K 12231.	Rp (?)	724
K 12784.	Pp	1118
K 12843.		840
K 12952.	Rp	348
K 12955.	Ob T (?)	1093
K 12963.	C	347
K 12965.	N	899
K 12966.	Ob	1047
K 12974.		1096
K 12976.	Note	144
K 12977.	N	879
K 12980.	N	879
K 12983.	Ob	1110, 1111
K 12985.	Rp	1139
K 12986.	N	877
K 12988.	Ob	1110, 1111
K 12994.	N	830
K 13007.	C	82
K 13015.	C	14
K 13017.	A	1140
K 13029.	N	849
K 13039.	N	847
K 13040.	N Ob	916
K 13043.	N	876
K 13053.	L	No. 169
K 13056.	C	801, 530
K 13057.	Rp	1055
K 13064.	Note	687
K 13067.	Ob	1081
K 13070.	N	830
K 13072.	L	489
K 13075.	C	170
K 13079.	Pp	899
K 13086.	Pp	770
K 13091.	Ob	1068
K 13097.	Ob	1067
K 13112.	Ex	806
K 13114.	C	805, 579
K 13124.	List	544
K 13133.	C	96
K 13146.	Note	139
K 13150.	C (?)	634
K 13155.	Ob	940
K 13156.		1096
K 13159.	Ob	1080
K 13179.	Ob	974
K 13182.		930
K 13185.	C	518
K 13187.	Rp	725
K 13189.	Rp	871
K 13190.	Pp	843
K 13192.	C	804, 582
K 13196.	N	899
K 13197.		857
K 13198.	Of	834
K 13199.	Of	863
K 13200.	Ob	1110
K 13206.	Ob	1065
K 13209.	Pp	900
K 13211.	Ob	1066
K 13214.	Ob	1110, 1112
K 13216.	Ob	1113
K 13218.	Pp	901
K 13220.	Ob	1063
K 13222.	Ob	1064
K 13223.	Ob	1114
K 13448.	N	749
K 13467.	N	902
K 13581.	Lq	1048
K 13735.	Pp	726
K 13752.	Pp	903
K 13845.	C	426
K 13914.	L	583
K 14122.	C	490
K 14123.	Ob	1049
K 14124.	Ob	1050
K 14234.		785
K 14235.		788
K 14236.		786
K 14237.		822
K 14242.		784
K 14247.		821
K 14268.		787

K 14279.		No. 789
K 14280.		790
K 14285.		791
K 14287.		793
K 14288.		792
K 14289.		795
K 14292.		794
K 14294.		796
K 14295.		798
K 14297.		799
K 14298.		797
K 14313.		800
Sm 3.	C	625
Sm 42.	C	546
Sm 55.	N	App. 2
Sm 189.	C S	806, 626
Sm 199.	C	180
Sm 218.	C	269
Sm 240.	C	440
Sm 270.	C	401
Sm 287.	Ob Pp	971
Sm 347.	C S	806, 626
Sm 360.	Ob	973
Sm 434.	Ob	973
Sm 447.	C	180
Sm 461.	C	491
Sm 469.	N Ob	818
Sm 475.	B C P	155
Sm 553.	C	180
Sm 649.	C	320
Sm 653.	Rp	727
Sm 701.	C	213
Sm 716.	C	584
Sm 736.	Ex	926
Sm 762.	Pp	904
Sm 836.	Letter	926
Sm 867.	C	531
Sm 917.	C	189
Sm 921.	C V	378
Sm 928.	Proc (?)	670
Sm 957.	C V	128
Sm 992.	Ob	982
Sm 1001.	Of	915
Sm 1035.	C	492
Sm 1039.	Lq	1001
Sm 1047.	C	343
Sm 1076.	C	452
Sm 1198.	Pp	875
Sm 1249.	C	206
Sm 1341.	Ob	764
Sm 1342.	L	434
Sm 1407.	C	320
Sm 1475.	N Cities	1097
Sm 1476.	C	602
Sm 1613.	Ob	1037
Sm 1654.	C	341
Sm 1677.	L	519
Sm 1678.	C	212
Sm 1679.	C	633
Sm 1731.	Ob	No. 982
Sm 1767.	Pp	905
Sm 1921.	Pp	906
Sm 1993.	C	585
Sm 2086.	C	561
Sm 2113.	N	907
Sm 2276.	B. I	766
D T 12.	C	317
D T 55.	N	746
D T 167.	C	298
D T 214.	N	908
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D T 308.	C	339
Rm 45.	Ob	1051
Rm 51.	B N	909
Rm 52.	Lq	1018
Rm 53.	C	338
Rm 57.	Lq	1019
Rm 62.	C	520
Rm 66.	A Lq	1020
Rm 70.	B	992
Rm 75.	C	652
Rm 80.	Memo	1052
Rm 127.	C	586
Rm 147.	C	276
Rm 156.	C	326
Rm 158.	C	190
Rm 159.	C	209
Rm 160.	C	294
Rm 161.	C	225
Rm 163.	C	612
Rm 165.	C	161
Rm 166.	C	306
Rm 167.	C P S	230
Rm 168.	C	262
Rm 169.	Ob	1121
Rm 170.	C	355
Rm 171.	C	472
Rm 172.	C	398
Rm 173.	C	18
Rm 174.	C	365
Rm 175.	C	41
Rm 176.	C	149
Rm 177.	C P	76
Rm 179.	C	627
Rm 180.	C	363
Rm 181.	C	287
Rm 182.	C	333
Rm 183.	C	362
Rm 185.	C	353
Rm 186.	C	525
Rm 187.	C P	195
Rm 189.	C	248
Rm 190.	C	152
Rm 202.	Of	771
Rm 368.	Proc M P	648
Rm 378.	C	547
Rm 390.	Ob (?)	1088

Rm 392.	C (?)	No. 636
Rm 423.	Pp	750
Rm 462.	Ob	957
Rm 463.	C	457
Rm 464.	Ob (?)	1119
Rm 470.	C	493
Rm 527.	C	402
Rm 553.	C	494
Rm 555.	C	339
Rm 559.	Ob	1074
Rm 560.	C	495
Rm 562.	C	495
Rm 567.	N	App. 2
Rm 583.	C	316
Rm 594.	Ob	983
Rm 619.	Ob	1036
Rm 959.	Pp	686
Rm 973.	C	603
Rm 981.	C	220
Rm 1001.	N	604
Rm 1016.	Ob	824
Rm 1022.	A	1140
Rm II 18.	C	243
Rm II 19.	C P	415
Rm II 20.	C	375
Rm II 21.	C	509
Rm II 22.	C P	197
Rm II 23.	Pp	855
Rm II 165.	C	223
Rm II 192.	Proc (?)	668
Rm II 193.	C	268
Rm II 194.	C P	658
Rm II 195.	C	605
Rm II 247.	Rp	911
Rm II 255.	Ob	817
Rm II 278.	Cities	748
Rm II 282.	C	410
Rm II 319.	C	80
Rm II 374.	Ob (?)	1120
Rm II 378.	C	554
Rm II 456.	Memo	733
Rm II 476.	C	224
Rm II 493.	C	496
Rm II 499.	C	497
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,, 78.	Ob	1122
,, 146.	C	516
,, 155.	C	606
,, 189.	B C	9
,, 212.	C	403
,, 216.	C	671
,, 258.	C	216
,, 265.	Ob	932
,, 270.	Ob	932
,, 275.	C	411
,, 287.	C	32
,, 309.	Estates (?)	742
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,, 31.	C	219
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,, 47.	C	33
,, 48.	C	58
,, 49.	C	244
,, 50.	Memo	708
,, 51.	C	70
,, 52.	C	387
,, 53.	C	274
,, 83.	C	377
,, 93.	C	356
,, 104.	Ob	961
,, 105.	Of	860
,, 111.	Proc (?)	738
,, 112.	Ob	977
,, 122.	Ob	978
,, 135.	C	632
,, 136.	Estates (?)	918
,, 138.	L	405
,, 140.	L	271
,, 144.	Ob	944
,, 149.	C	137
,, 150.	C	196
,, 175.	C	159
,, 183.	C (?)	555
,, 185.		921
,, 188.	C	498
,, 262.	Ob	943
,, 301.	C	499
,, 314.	C	108
,, 345.	Rp	802
,, 347.	N	844
,, 348.	C	429 C
,, 350.	C	346
,, 352.	C	346
,, 353.	C	215
,, 363.	C	532
,, 368.	C	79
81–2–4, 54.	Ob	979
,, 71.	Ob	1011
,, 90.	Offerings	1010
,, 99.	,,	1012
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,, 146.	Ob	937
,, 147.	C V Br	129
,, 149.	C S	232
,, 150.	C	231
,, 151.	C	124
,, 152.	C V	245
,, 153.	C	174
,, 154.	C	252
,, 155.	L	417
,, 156.	C	34
,, 157.	C	272
,, 158.	C	251
,, 159.	C	521
,, 160.	Offerings	1034
,, 161.	C	435
,, 162.	C	437
,, 163.	C	212
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,,	268.	Ob	980
,,	284.	Ob (?)	985
,,	318.	Ob (?)	958
,,	339.	Ob	1060
,,	349.	I	767
,,	381.	C	106
,,	389.	C	545
,,	390.	C	587
,,	395.	C	562
,,	403.	Epigraphs	987
,,	446.	N	App. 6
,,	457.	Of	839, 588
,,	463.	Ob	1090
,,	475.	C (?)	174
,,	490.	N	866
,,	501.	N	841
81–7–27,	25.	C	453
,,	26.	C	463
,,	27.	C	240
,,	28.	C	421
,,	36.	C	589
,,	42.	C	590
,,	68.	C	389
,,	90.	Of	913
,,	113.	H	739
,,	117.	N	888
,,	138.	C	304
,,	141.	C	300
,,	237.	C	556
,,	263.	Rp	920
82–3–23,	8.	Ob	938
,,	9.	N	828
,,	13.	Ex	816
,,	22.	C	591
,,	25.	C	280
,,	63.	Ex	1069
,,	70.	Ob	939
,,	73.	Ob	1123
,,	87.	Rp	866
,,	93.	C	592
,,	99.	Of	858
,,	105.	Ob	967
,,	109.	L (?)	704
,,	117.	Ob	1094
,,	121.	Of	607
,,	129.	C	706
,,	134.	C	238
,,	135.	N	App. 7
,,	136.	N	845
,,	137.	N	App. 1
,,	140.	Ob	1061
,,	143.	C	392
82–5–22,	29.	C	237
,,	30.	C	241
,,	31.	C	376
,,	32.	C	456
,,	33.	C	332
82–5–22,	34.	C P	No. 447
,,	35.	L	500
,,	36.	C	198
,,	38.	L	164
,,	39.	Offerings	1014
,,	40.	Memo	702
,,	41.	C	3
,,	42.	C	101
,,	43.	Memo	701
,,	44.	C	593
,,	45.	C	282
,,	47.	C	112
,,	90.	Memo	645
,,	110.	C	406
,,	112.	Of	835
,,	121.	N	1098
,,	139.	C	372
,,	151.	C	501
,,	170.	Offerings	1013
,,	176 *a*.	C V	24
,,	176 *b*.	C V	25
,,	513.	Ob	1124
,,	533.	Ob	1053
,,	548.	Ob	1125
,,	1011.	C	221
83–1–18,	80.	Ob	1021
,,	101.	Memo	699
,,	127.	Ob	1095
,,	134.	C	321
,,	144.	C	693
,,	145.	Lq	1029
,,	161.	Ob	1033
,,	163.	C	319
,,	201.	C	113
,,	217.	C	294
,,	239.	Memo B	856
,,	256.	Ob	1057
,,	259.	C	297
,,	269.	L	502
,,	291.	L	391
,,	304.	C	93
,,	315.	C	54
,,	321.	Memo	709
,,	323.	List (Census?)	138
,,	327.	Ob	1030
,,	328.	C	194
,,	329.	C P V	533
,,	330.	C	120
,,	331.	C	473
,,	332.	Memo	644
,,	333.	C	8
,,	334.	C V	255
,,	335.	C	350
,,	336.	L	238
,,	337.	L	330
,,	338.	C	257
,,	339.	C	246
,,	340.	C	175
,,	341.	C	202
,,	342.	C	624

83-1-18,	343.	C	No. 239
,,	344.	C	222
,,	345.	C	279
,,	346.	List	684
,,	347.	Of	854
,,	348.	List	424
,,	349.	C	275
,,	350.	C V	427 A
,,	351.	Lq	1126
,,	352.	C	188
,,	353.	L	503
,,	354.	C	61
,,	355.	C	427
,,	356.	C	184
,,	357.	C	199
,,	358.	C	284
,,	359.	C	253
,,	360.	C	404
,,	362.	C	534
,,	363.	C	315
,,	364.	C	100
,,	365.	C	30
,,	366.	C	167
,,	367.	C	168
,,	368.	C	13
,,	369.	Memo	700
,,	370.	C	51
,,	371.	C	26
,,	372.	C	614
,,	373.	C	99
,,	374.	C	44
,,	375.	C	302
,,	376.	C	409
,,	377.	C	548
,,	378.	L	473
,,	379.	C	393
,,	380.	C	213
,,	381.	C	291
,,	382.	C	116
,,	385.	C	522
,,	387.	C	429 B
,,	389.	C	292
,,	390.	C	504
,,	391.	C	594
,,	392.	C	256
,,	393.	C	89
,,	395.	List	675
,,	396.	C	78
,,	397.	C	297
,,	398.	C	314
,,	399.	Of	836
,,	402.	Ob	1089
,,	404.	C	109
,,	405.	C	142
,,	406.	C	134
,,	407.	C	133
,,	408.	C	145
,,	409.	L	503
,,	425.	Insc.	809
,,	432.	Memo	1127
83-1-18,	454.	Of	No. 981
,,	459.	Estates (?)	752
,,	460.	C	360
,,	461 *b*.	C	331
,,	471.	N	912
,,	478.	C	418
,,	484.	C	425
,,	485.	C	450
,,	501.	C	595
,,	515.	Ob	969
,,	560.	C	181
,,	562.	Ob	965
,,	567.	C	549
,,	579.	C	596
,,	590.	C	550
,,	592.	Ob	1038
,,	593.	Ex	924
,,	594.	Of	850
,,	595.	Ob	1026
,,	596.	Of	833
,,	597.	Ob	966
,,	688.	C	394
,,	689.	C	270
,,	690.	C	469
,,	695.	N	App. 3
,,	698.	C	431
,,	714.	Of	751
,,	715.	N	848, App. 4
,,	723.	C	611
,,	737.	C	523
,,	738.	C	563
,,	757.	C	524
,,	763.	N	878
,,	764.	C (?)	685
,,	768.	C	367
,,	770.	C	460
,,	773.	C	505
,,	781.	C	564
,,	806.	C	460
,,	828.	C	12
,,	844.	Rp	728
,,	848.	C	565
,,	853.	List	608
,,	862.	C	458
,,	880.	C	460
,,	888.	C	597
,,	896.	N	846
,,	900.	C	535
Bu 89-4-26,	2.	C	215
,,	7.	C	60
,,	10.	C	126
,,	14.	C	148
,,	22.	C	227
,,	32.	C	119
,,	33.	C	432
,,	38.	N	App. 8
,,	53.	C	536
,,	59.	C	615
,,	73.	N	App. 9
,,	83.	Rp	729

Bu 89-4-26,	84.	C	No. 557
,,	104.	C (?)	566
,,	120.	C	201
,,	122.	L	263
,,	123.	C	241
,,	124.	Of	832
,,	128.	C	455
,,	131.	L	506
,,	157.	C	390
Bu 91-5-9,	4.	C	17
,,	10.	C	150
,,	27.	C	53
,,	35.	Ob	1129
,,	40.	C	226
,,	41.	C	408
,,	55.	C	340
,,	57.	C	91
,,	59.	C	264
,,	60.	Memo	1054
,,	62.	C	712
,,	65.	N	1140, 1128
,,	74.	C	107
,,	79.	C	85
,,	82.	C	567
,,	83.	C	598
,,	84.	C	508
,,	94.	C	186
Bu 91-5-9,	95.	C	No. 443
,,	98.	C	264
,,	114.	C	171
,,	120.	Memo	859, 705
,,	121.	C	191
,,	122.	L	408
,,	123.	L	507
,,	127.	C	508
,,	135.	L	408
,,	138.	C	72
,,	146.	C	537
,,	151.	C	443
,,	158.	Ob	1015
,,	162.	L	445
,,	166.	C	183
,,	171.	C	340
,,	173.	C	462
,,	179.	C	200
,,	182.	C	249
,,	193.	Report	809, 660
,,	197.	C	643
,,	209.	C	374
,,	223.	Ob	1130
,,	230.	C	551
,,	231.	C	459
,,	232.	C	368
95-4-6,	5.	C	694

The Registration marks of the 72 'contract' tablets written in the Babylonian character are:—

KK 433, 931, 1297, 1377, 3783, 3790, 4274, 4285, 4726, 4738, 4790, 5424 *c*, 5602, 8133, 8485, 8506, 8712, 8860, 11800, 11967, 12960, 13052, 13099, 13113, 13956.

Sm 1037, 1655.

D T 20, 21, 24, 25, 26, 27, 29, 30, 31, 32, 33, 34, 62, 66, 79, 108, 110, 112, 149, 165, 168, 181, 185, 187, 189, 193, 202, 204, 208, 213, 225, 233, 248, 253, 268, 276, 309.

Rm 157, 162, 164, 184. Rm II 599. 81-7-27, 201, 204, 213.

The five tablets written entirely in Aramaic characters are:—

K 3785. D T 88. Rm 188, 909. 81-2-4, 148.

The Louvre tablet, Sargon 12, which was to have been numbered 780, is now numbered 1141.

The following 'lists' are written in the Babylonian character:—

KK 764, 934, 1446, 1997, 5414 *b*, 5514, 5549, 6072, 8400, 8516, 8683, 8750, 8787, 9569, 9871, 10426, 11673, 14140.

Sm 471, 726, 859, 1512. D T 278. Rm II 416.

79-7-8, 20, 123. 81-7-27, 281.

83-1-18, 857. Bu 91-5-9, 25.

Lists of forms of official titles are :—

KK 4395, 4553, 11216, 12446.

The tablets, entered in the Catalogue in the lists quoted on p. vii of the Preface, but really belonging to the group entered as 'like K 2017' are :—

KK 6951, 8179, 12956, 13002, 13124. Sm 178.

The texts are published in An Assyrian Doomsday Book, as nos. 20, 8, 18, 2, 11, 6.

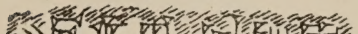
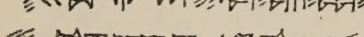
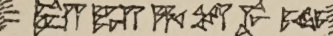
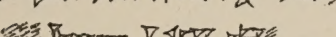
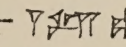
Other tablets entered in the Catalogue as 'lists,' but which seem to have no affinity with those published in this work, are :—

KK 858, 2858, 4248, 4384, 4405, 6509, 7647, 8434, 13068.

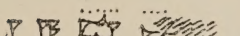
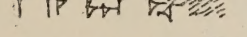
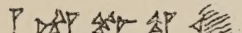
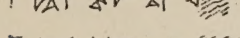
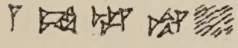
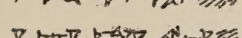
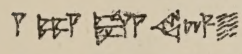
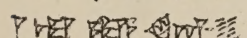
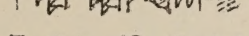
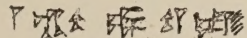
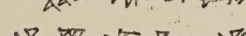
81–2–4, 110.

ADDITIONAL CUNEIFORM TEXTS.

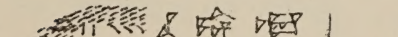
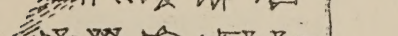
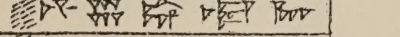
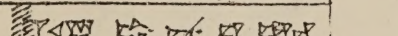
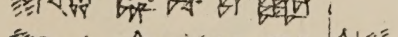
No. 717. [K. 1759a.]

1. 
2. 
3. 
4. 
5. 

No. 718. [K. 2828.]

1. 
2. 
3. 
4. 
5. 
6. 
7. 
8. 
9. 
10. 
11. 

No. 719. [K. 7444.]

1. 
2. 
3. 
4. 
5. 

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No. 720. [K. 9591.]

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No. 721. [K. 10032.]

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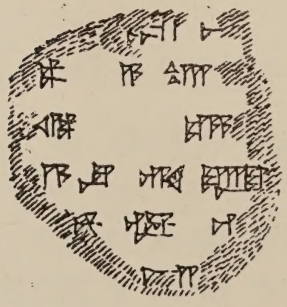

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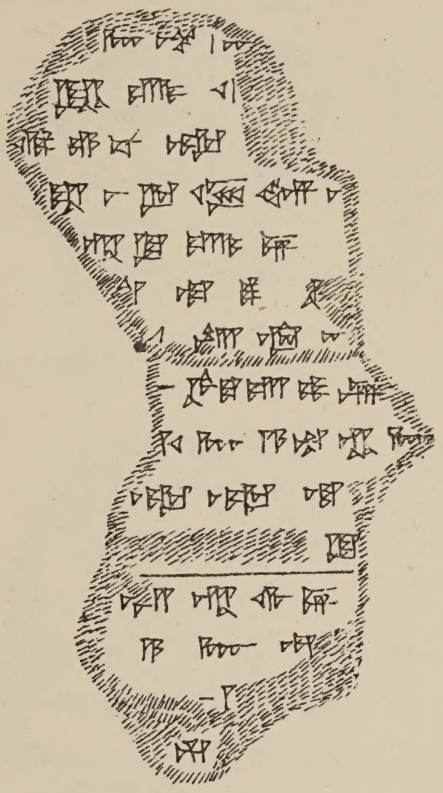

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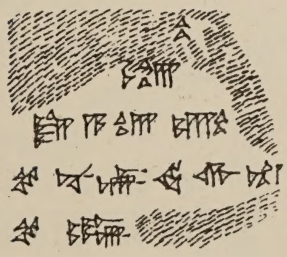

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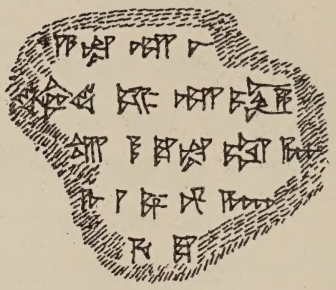

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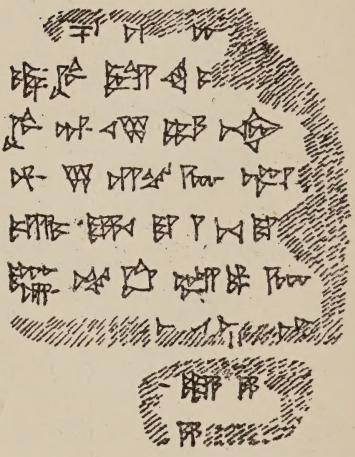
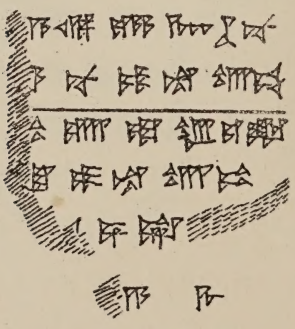


No. 726. [K. 13735.]



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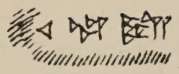

No. 727. [Sm. 653.]

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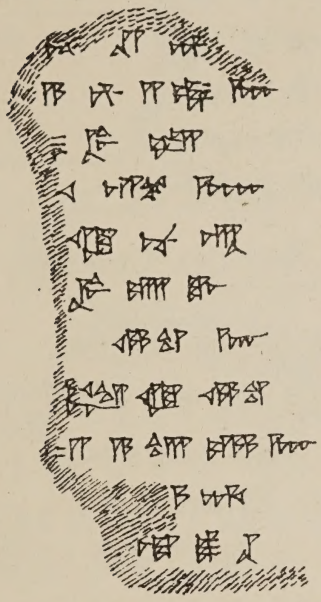

No. 728. [83-1-18, 844.]

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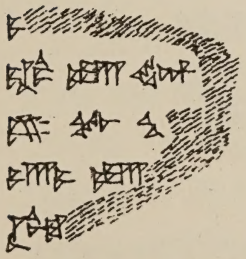
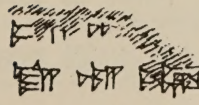
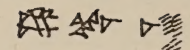
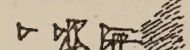
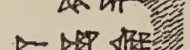
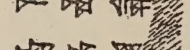
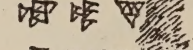
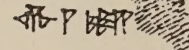
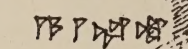


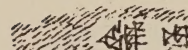
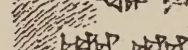
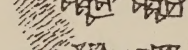
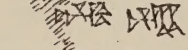
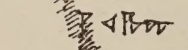
No. 729. [Bu. 89-4-26, 83.]

1.
2.

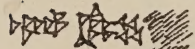
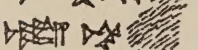
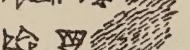


3. 
4. 
5. 
6. 
7. 
8. 
9. 

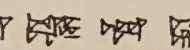
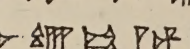
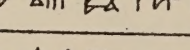
No. 730. [K. 1733.]

1. 
2. 
3. 
4. 
5. 

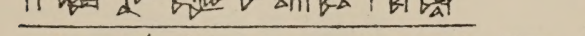
No. 731. [K. 2819.]

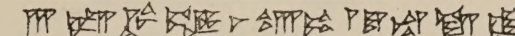
1. 
2. 
3. 

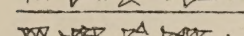
No. 732. [K. 816.]

1. 
2. 
3. 

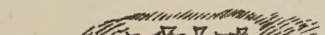
4.

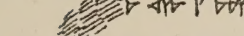
5. 

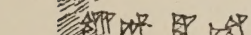
6. 

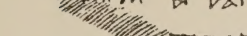
R. 1. 

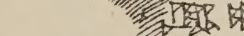
No. 733. [Rm. II. 456.]

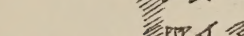
1. 

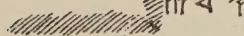
2. 

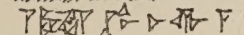
3. 

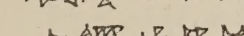
4. 

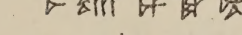
5. 

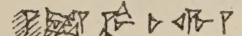
6. 

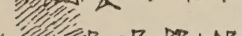
7. 

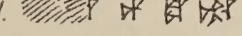
B.E.1. 

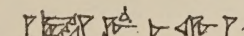
R. 1. 

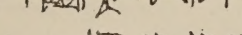
2. 

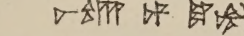
3. 

4. 

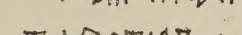
5. 

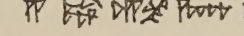
6. 

7. 

8. 

No. 734. [K. 2814.]

1. 

2. 

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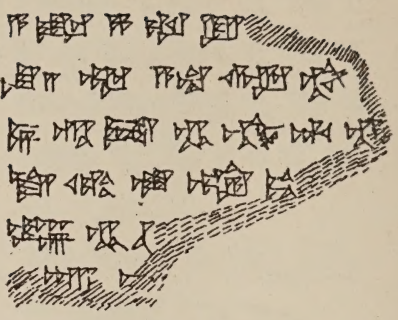

No. 735. [K. 4475.]

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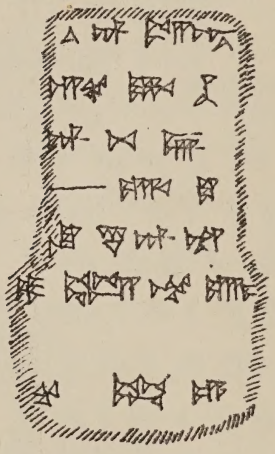

No. 736. [K. 4506.]

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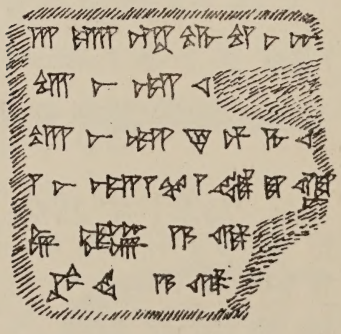
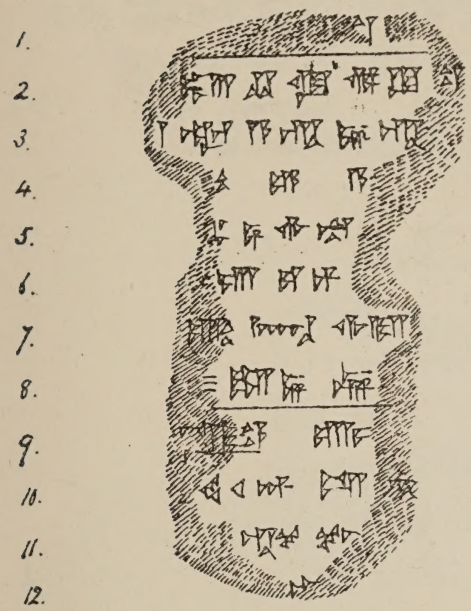
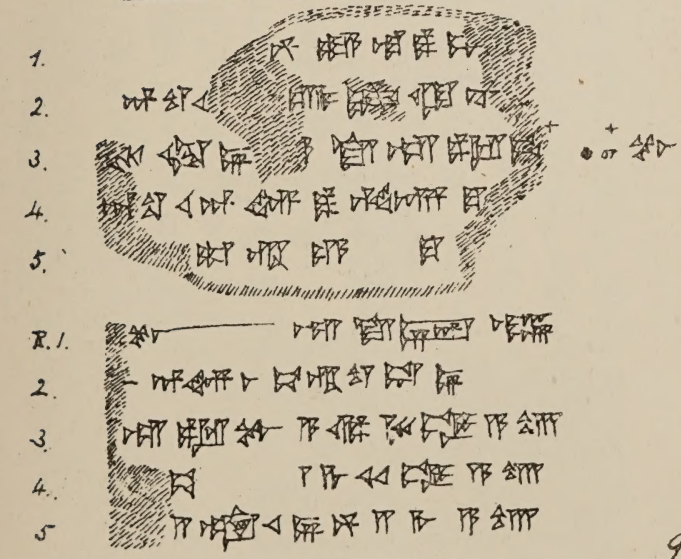


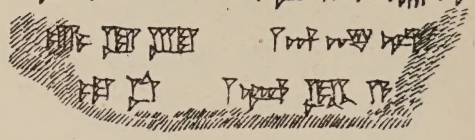
No. 737. [K. 4509.]



No. 738. [K. 80-7-19, 111]



6.
7.
8.
9.



No. 739. [81-7-27, 113.]

1.
2.
3.
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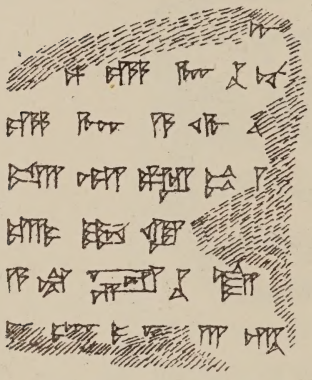

No. 740. [K. 2698.]

1.
2.
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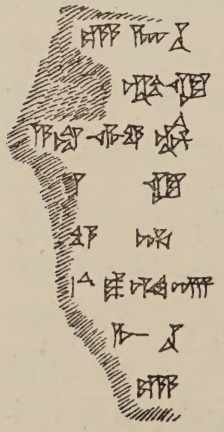
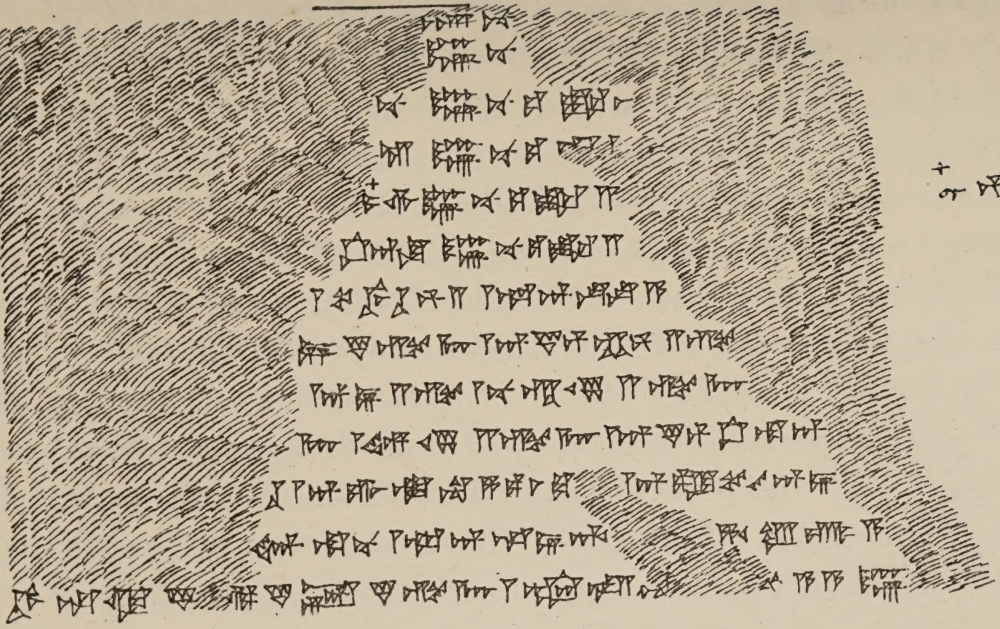
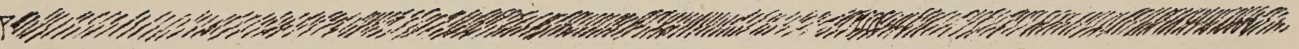
8.



No. 741. [K.4291 &c.]



12



The continations of lines 20–26. are as follows, the distance between the two portions being estimated by the space occupied by the amount of text needed to fill it.

20
21
22.
23.
24.
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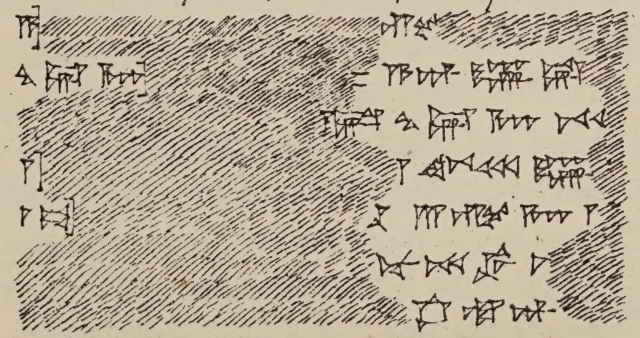
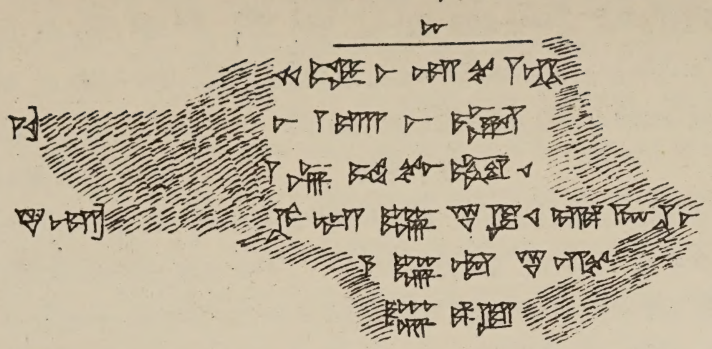
26.



The signs on the left indicate the characters last legible on the same lines on p. 12.

The reverse has been completely flaked off. but no. 465 has now been joined on and forms part of lines 1–8. . K. 1749 is also part of reberse, but where it belonged is not clear.

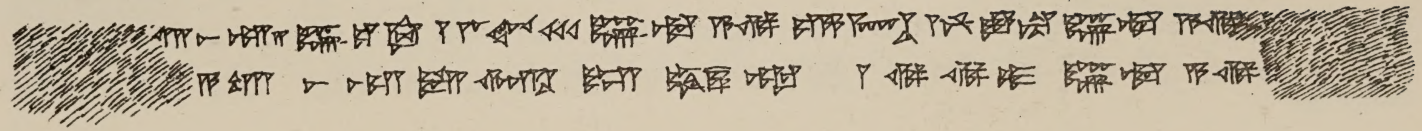
K. 1749.



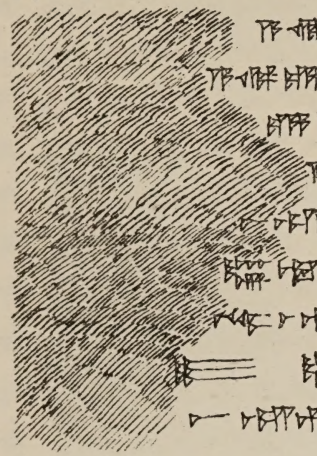
These lines possibly form part of lines 31 to 37 of obverse: beyond no. 749, which has parts of lines 32–39. The signs to the left indicate how far of the ends of the lines in no. 749 might be.

15.

No. 742. [79-7-8, 309.]



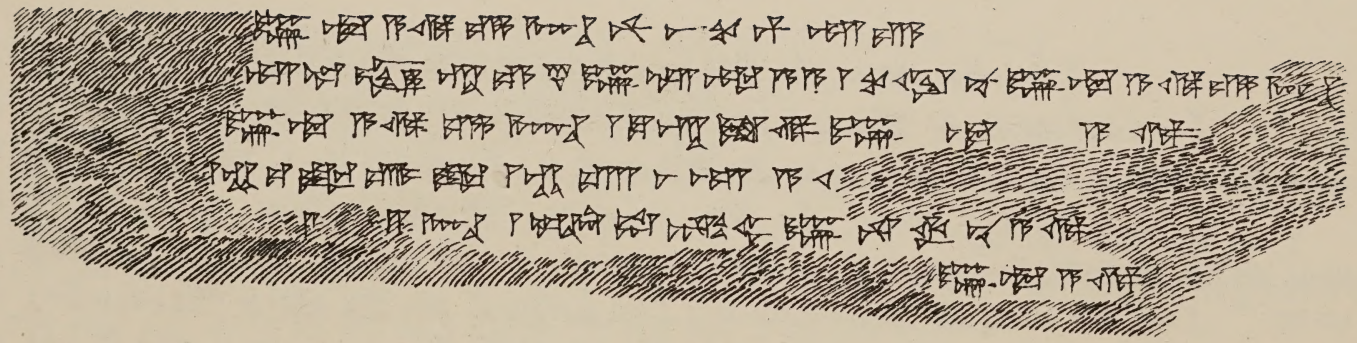
১. ৮৮ ৮৮ ৮৮



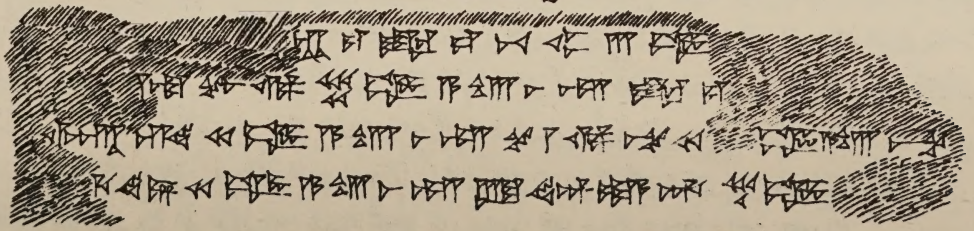
Reverse.

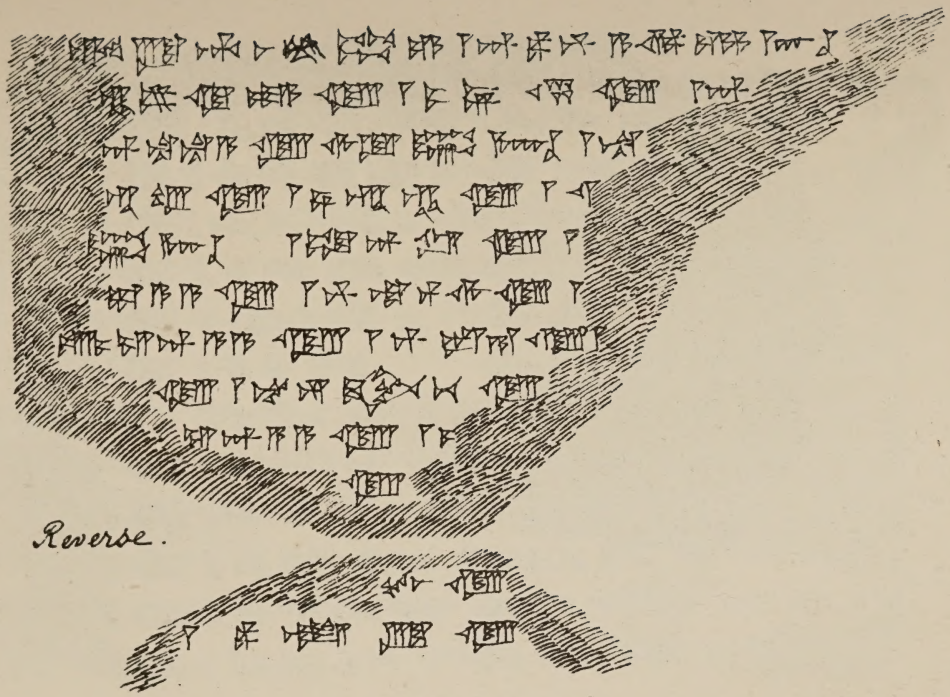
1. ಕೆಲವು ಪಕ್ಷಿಗಳು ಆಹಾರವನ್ನು ಹುಡುಕಿಕೊಂಡು ಬಹಳ ದೂರ ಹೋಗುತ್ತವೆ.
2. ಕೆಲವು ಪಕ್ಷಿಗಳು ಆಹಾರವನ್ನು ಹುಡುಕಿಕೊಂಡು ಬಹಳ ದೂರ ಹೋಗುವುದಿಲ್ಲ.
3. ಕೆಲವು ಪಕ್ಷಿಗಳು ಹಾರಾಡುತ್ತಾ ಆಹಾರವನ್ನು ಹುಡುಕುತ್ತವೆ.
4. ಕೆಲವು ಪಕ್ಷಿಗಳು ಹಾರಾಡುತ್ತಾ ಆಹಾರವನ್ನು ಹುಡುಕುವುದಿಲ್ಲ.
5. ಕೆಲವು ಪಕ್ಷಿಗಳು ಕೀಟಗಳನ್ನು ಹಿಡಿದು ತಿನ್ನುತ್ತವೆ.
6. ಕೆಲವು ಪಕ್ಷಿಗಳು ಕೀಟಗಳನ್ನು ಹಿಡಿದು ತಿನ್ನುವುದಿಲ್ಲ.
7. ಕೆಲವು ಪಕ್ಷಿಗಳು ಹಣ್ಣುಗಳನ್ನು ತಿನ್ನುತ್ತವೆ.
8. ಕೆಲವು ಪಕ್ಷಿಗಳು ಹಣ್ಣುಗಳನ್ನು ತಿನ್ನುವುದಿಲ್ಲ.
9. ಕೆಲವು ಪಕ್ಷಿಗಳು ಕಾಳುಗಳನ್ನು ತಿನ್ನುತ್ತವೆ.
10. ಕೆಲವು ಪಕ್ಷಿಗಳು ಕಾಳುಗಳನ್ನು ತಿನ್ನುವುದಿಲ್ಲ.
11. ಕೆಲವು ಪಕ್ಷಿಗಳು ಮೀನುಗಳನ್ನು ಹಿಡಿದು ತಿನ್ನುತ್ತವೆ.
12. ಕೆಲವು ಪಕ್ಷಿಗಳು ಮೀನುಗಳನ್ನು ಹಿಡಿದು ತಿನ್ನುವುದಿಲ್ಲ.
13. ಕೆಲವು ಪಕ್ಷಿಗಳು ಸಣ್ಣ ಪ್ರಾಣಿಗಳನ್ನು ಹಿಡಿದು ತಿನ್ನುತ್ತವೆ.
14. ಕೆಲವು ಪಕ್ಷಿಗಳು ಸಣ್ಣ ಪ್ರಾಣಿಗಳನ್ನು ಹಿಡಿದು ತಿನ್ನುವುದಿಲ್ಲ.
15. ಕೆಲವು ಪಕ್ಷಿಗಳು ಸತ್ತ ಪ್ರಾಣಿಗಳನ್ನು ತಿನ್ನುತ್ತವೆ.
16. ಕೆಲವು ಪಕ್ಷಿಗಳು ಸತ್ತ ಪ್ರಾಣಿಗಳನ್ನು ತಿನ್ನುವುದಿಲ್ಲ.
17. ಕೆಲವು ಪಕ್ಷಿಗಳು ಮರಗಳಲ್ಲಿ ವಾಸಿಸುತ್ತವೆ.
18. ಕೆಲವು ಪಕ್ಷಿಗಳು ಮರಗಳಲ್ಲಿ ವಾಸಿಸುವುದಿಲ್ಲ.
19. ಕೆಲವು ಪಕ್ಷಿಗಳು ಬಿಲಗಳಲ್ಲಿ ವಾಸಿಸುತ್ತವೆ.
20. ಕೆಲವು ಪಕ್ಷಿಗಳು ಬಿಲಗಳಲ್ಲಿ ವಾಸಿಸುವುದಿಲ್ಲ.

20. [illegible]
21. [illegible]
22. [illegible]
23. [illegible]
24. [illegible]
25. [illegible]
26. [illegible]
27. [illegible]
28. [illegible]
29. [illegible]
30. [illegible]
31. [illegible]
32. [illegible]



No. 743. [K. 3061.]

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Reverse.
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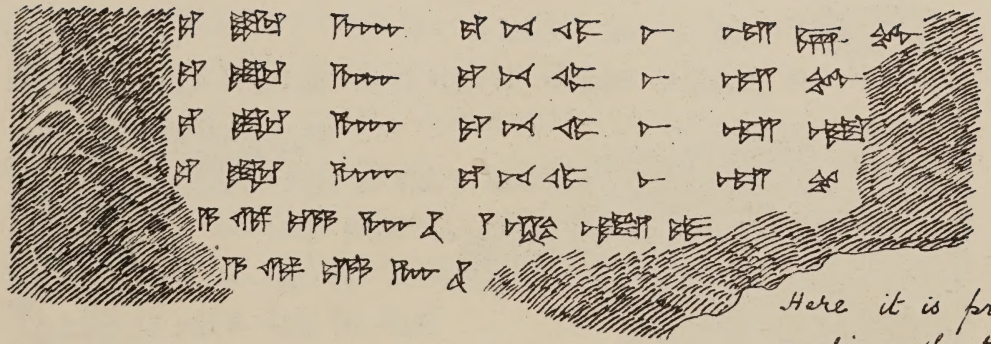
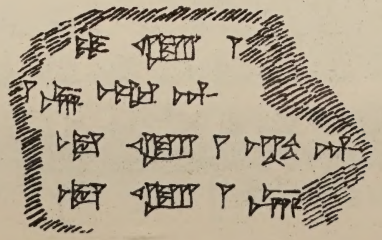
No. 744. [79-7-8, 310.]

Obverse line 7, we have probably the traces of the two hinā.

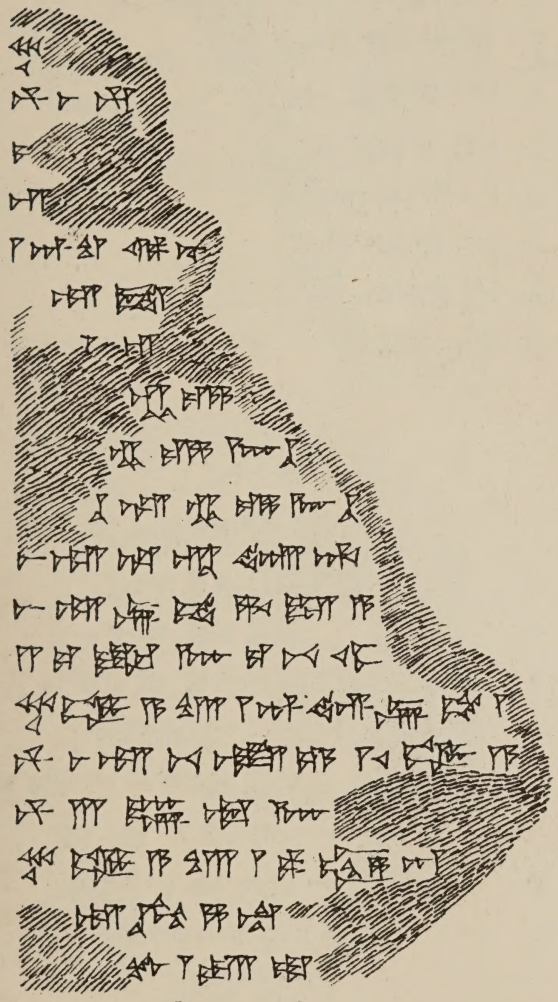


Here it is probable K.9086 continues the text.

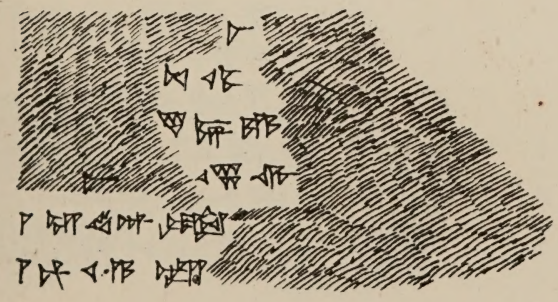
No. 745. [K. 11458]

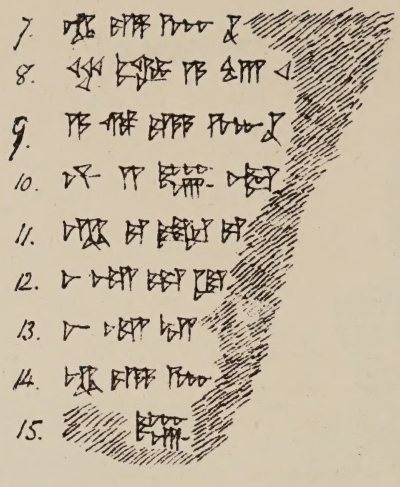


No. 746. [Z. 10345.]

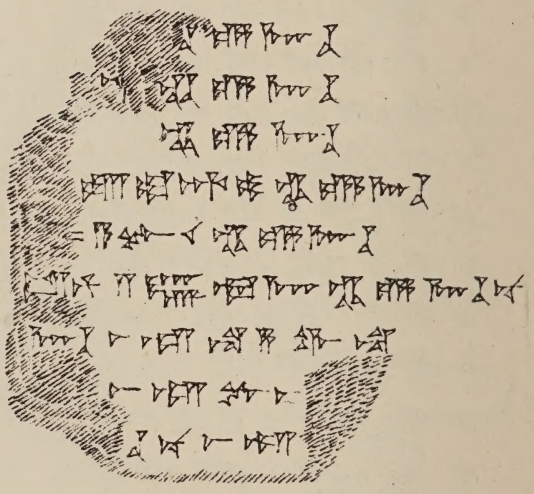


Reverse.

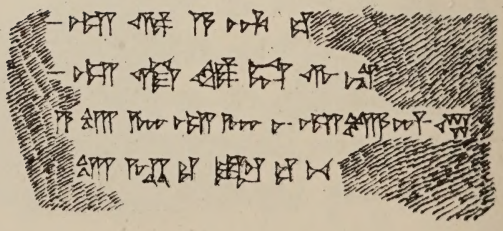




No. 747. [K. 11638.]



No. 748. [Rm. II. 278.]



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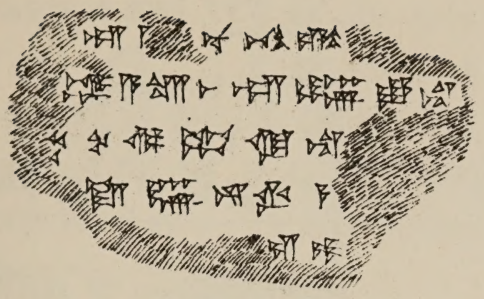

No. 749. [K. 13448]

This now joins no. 741, continuing lines 32-39 about 9 or 10 characters to the right.

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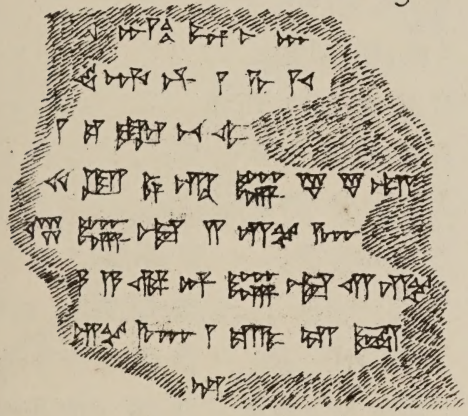

No. 750. [Rm. 423.]

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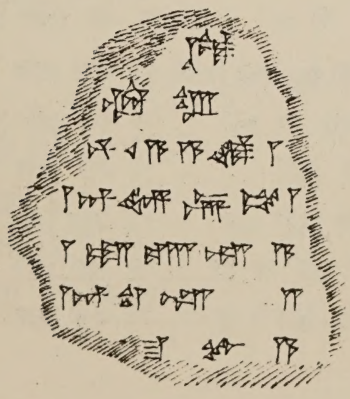
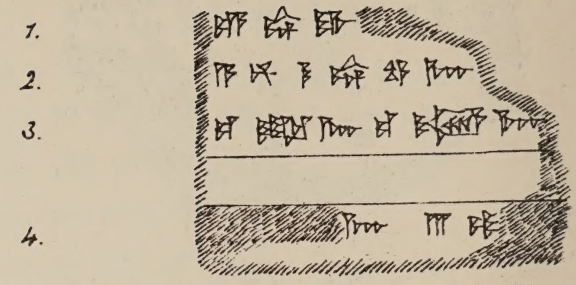
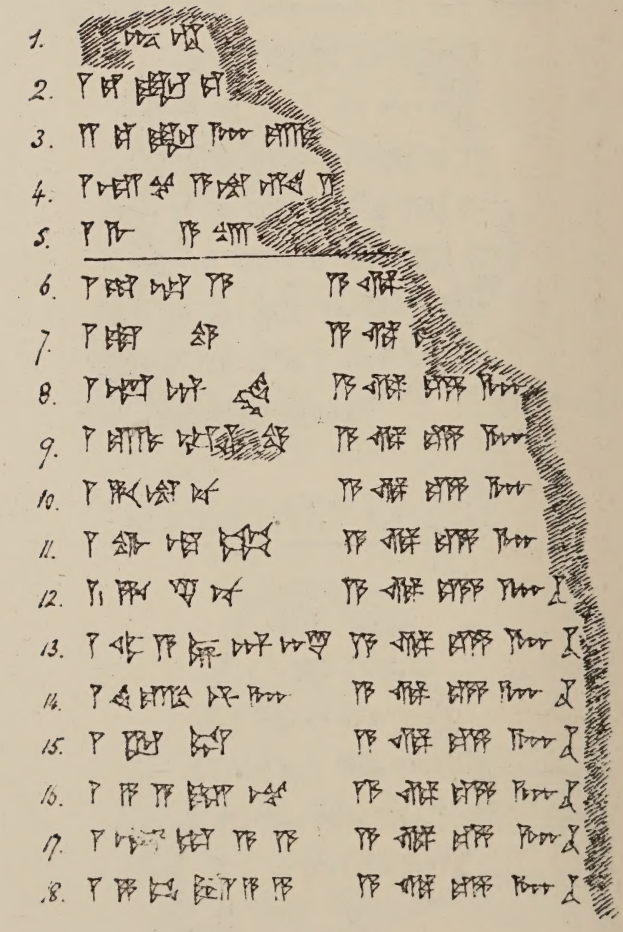
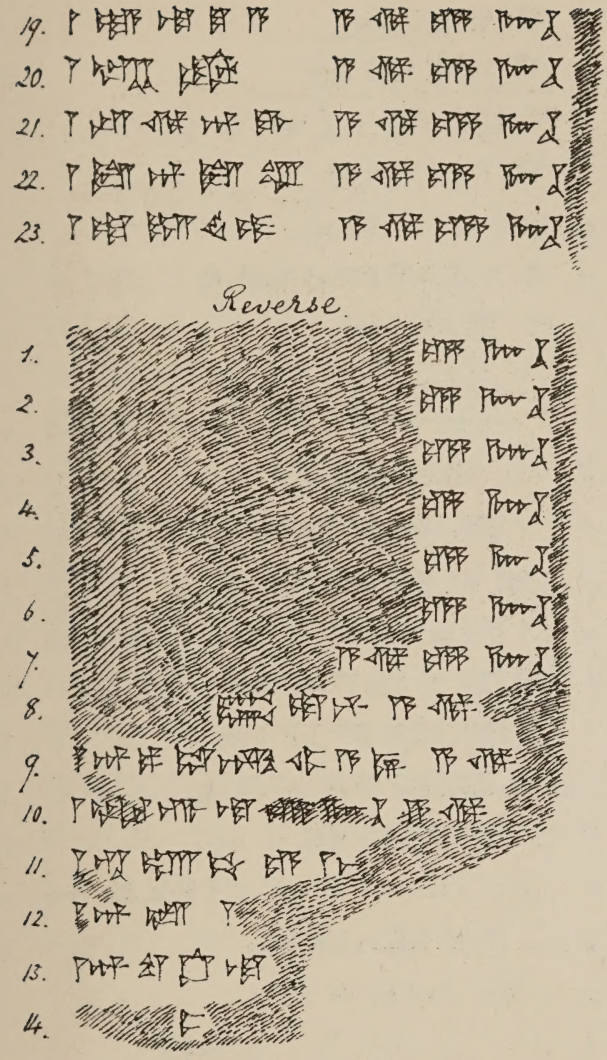


No. 751. [83-1-18, 714]

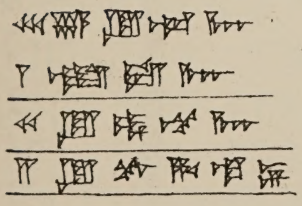


No. 752. [83-1-18, 459]





No. 753. [K. 1232.]



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No. 754. [K. 1253.]

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R. 1.
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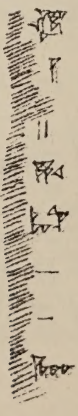

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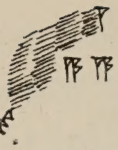

No. 755. [K. 123.]

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R. 1.
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No. 756. [K. 1014.]

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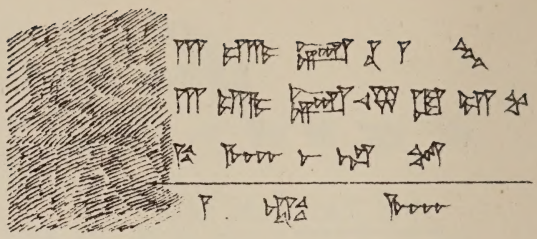
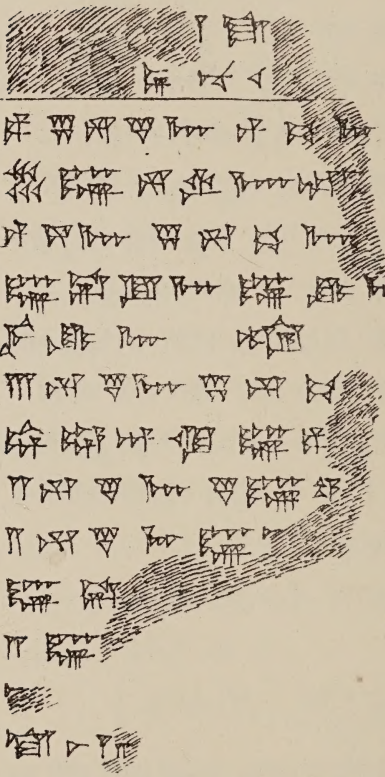
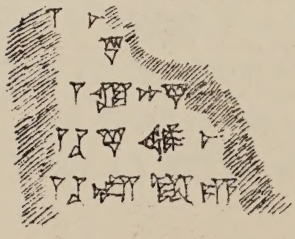
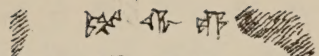
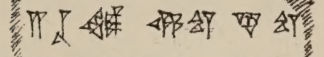
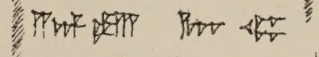
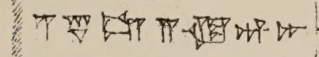
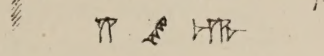
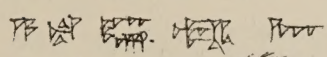
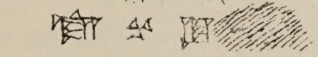
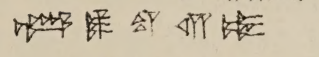
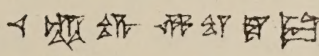
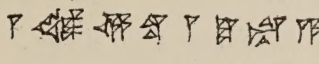


No. 757. [K. 1145.]

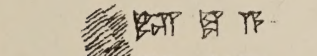
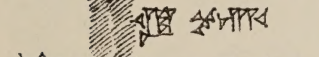
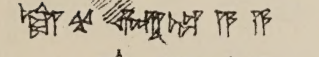
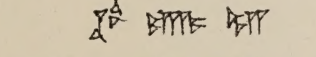
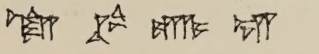
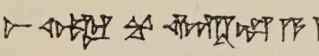
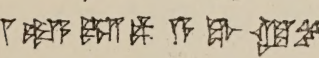
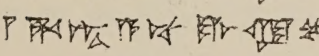
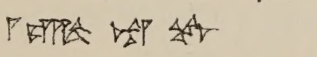
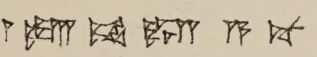
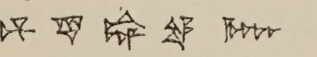
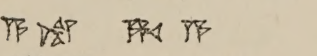
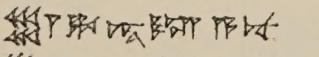
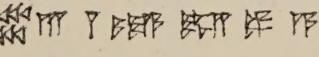


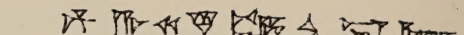
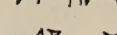
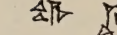
No. 758. [K. 1254.]



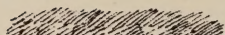
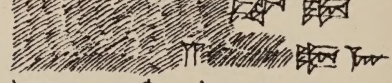
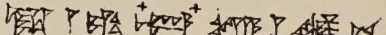
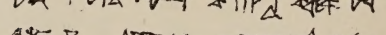
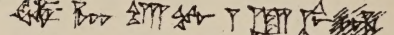
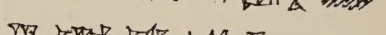
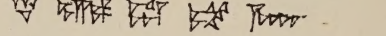
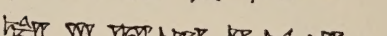
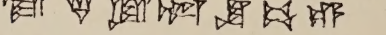
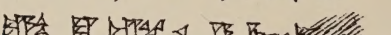
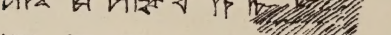
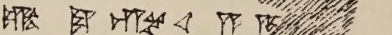
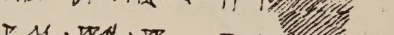
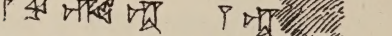
5. 
6. 
7. 
8. 
9. 
10. 
11. 
R. 1. 
2. 
3. 

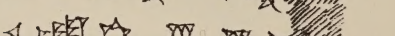
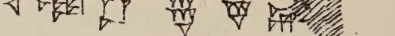
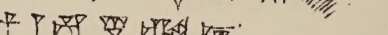
No. 759. [K. 1265.]

1. 
2. 
3. 
4. 
5.
6. 
7. 
8. 
9. 
10. 
11. 
12. 
R. 1. 
2. 
3. 

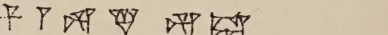
4. 
5. 
6. 

No. 760. [K. 1387.]

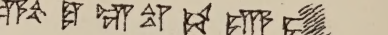
1. 
2. 
3. 
4. 
5. 
6. 
7. 
8. 
9. 
10. 
11. 
12. 
13. 
14. 

R. 1. 
2. 
3. 

blank space.

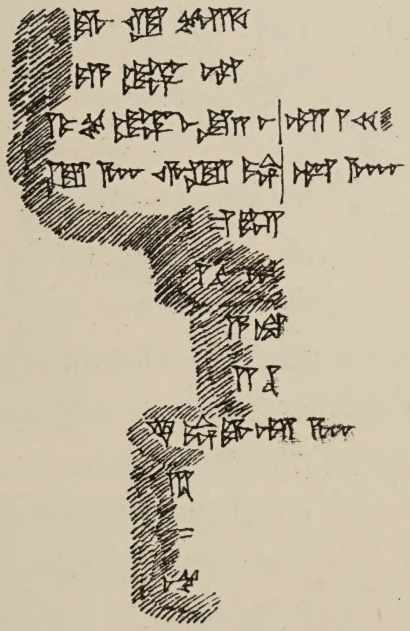
4. 

No. 761. [K. 1404.]

1. 

2.
3.
4.
5.
6.
7.
R. 1.
2.

No. 762. [K. 1476.]



1.
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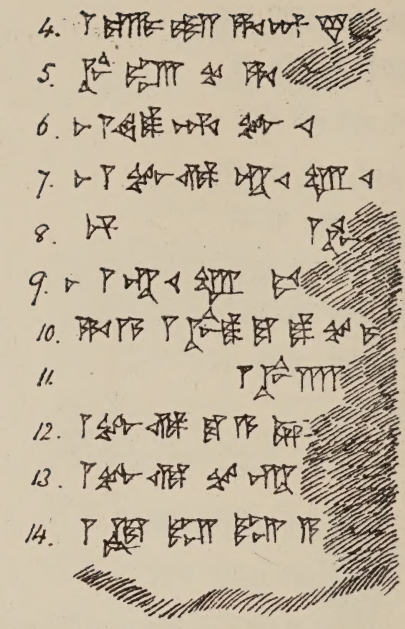
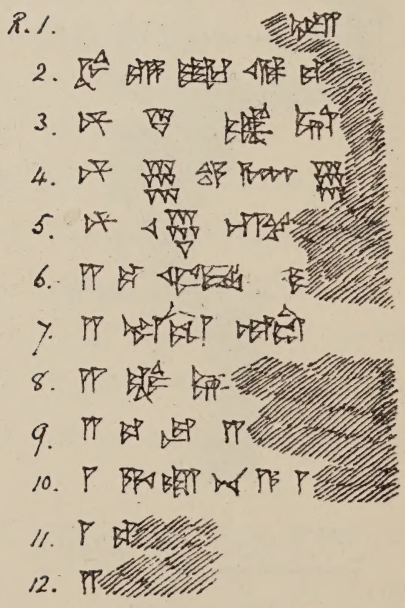
R. 1.
2.
3.
4.
5.
6.

No. 763. [K. 4718]

1.
2.
3.

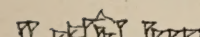
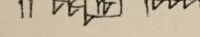
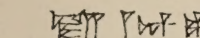
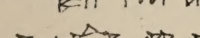


R. 1.

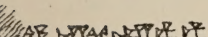
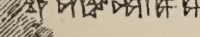


Three other lines give only illegible traces.

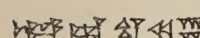
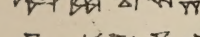
No. 764. [Sm. 1341.]

1. 
2. 
3. 
4. 

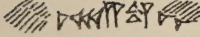
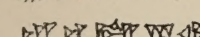
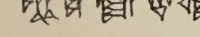
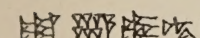
No. 765. [K. 391.]

1. 
2. 

No. 766. [Sm. 2276.]

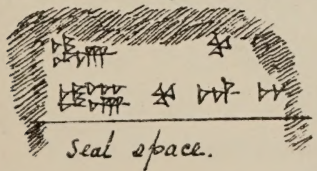
1. 
2. 

No. 767. [K. 3781a.]

1. 
2. 
3. 
4. 

No. 768. [K. 1869]

1.
2.



No. 769. [K. 975.]

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9.
R. 1.
2.
3.
4.
5.

No. 770. [K. 13086.]

1.
2.
3.
4.
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6.
7.
R. 1.
2.
3.

4.
5.
6.

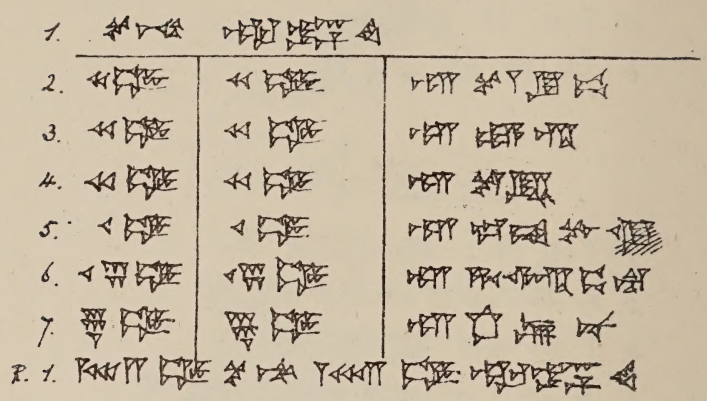
No. 771. [Rm. 202.]

1.
2.
3.
4.
5.
6.
B.E. 1.
R. 1.
2.
3.

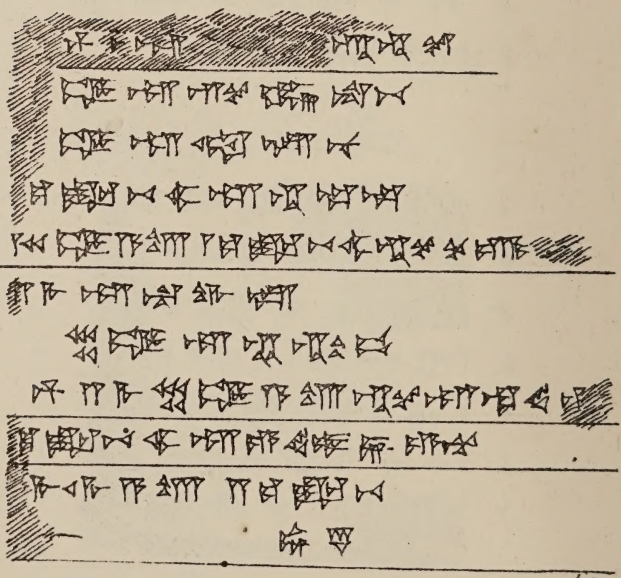
No. 772. [K. 11898.]

1.
2.
3.
4.
5.
6.
7.

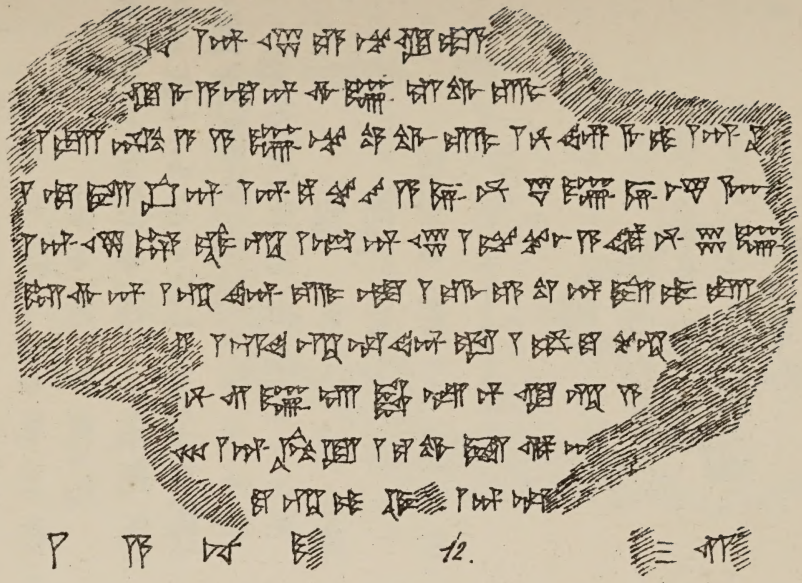
No. 773. [K. 180.]



No. 774. [D. T. 231.]



No. 775. [K. 8108.]



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4.
5.
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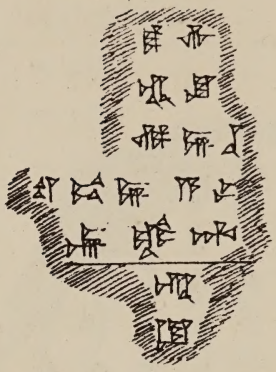
7.
8.
9.
10.
11. Lower edge.

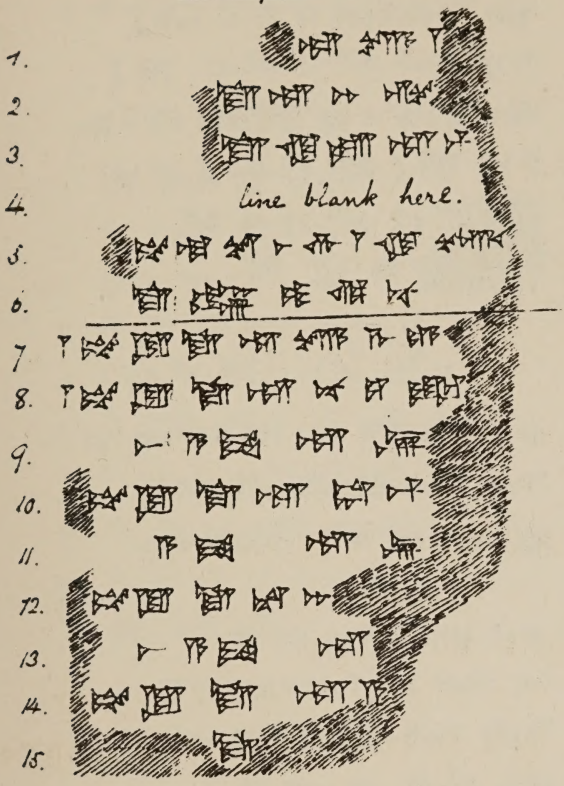
12.

No. 776. [H. 1502.]



No. 777. [H. 1520.]

No. 778. [H. 1004.]



No. 779. [Sch. I.]

1. Seal space.
2.
3.
4.
5.
6.
7.
8.

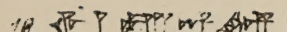
9. [illegible]
10. [illegible]
11. [illegible]
12. [illegible]
13. [illegible]
14. [illegible]

No. 780. [Sch. II.]

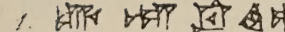
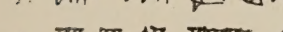
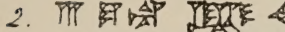
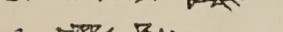
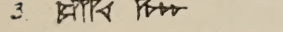
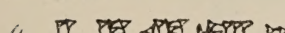
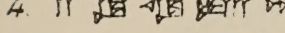
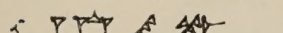
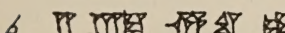
1. [illegible]
2. [illegible]
3. [illegible]

Seals

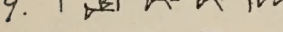
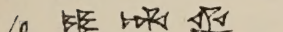
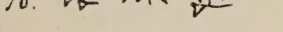
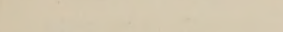
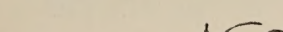
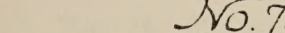
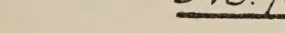
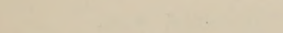
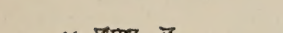
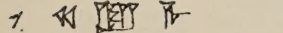
4. [illegible]
5. [illegible]
6. [illegible]
7. [illegible]
8. [illegible]
9. [illegible]
10. [illegible]
11. [illegible]
12. [illegible]
13. [illegible]
14. [illegible]
15. [illegible]
16. [illegible]
17. [illegible]

18. 

No. 781. [Sch. III.]

1. 
2. 
3. 
4. 
5. 
6. 
7. 
8. 
9.
10. 

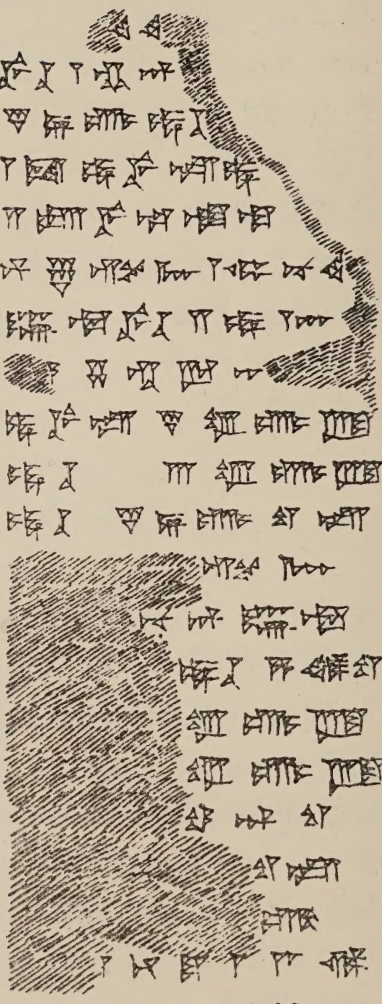
No. 782. [Sch. IV.]

1. 
2. 
3. 
4. 
5. 
6. 
7. 
8. 
9. 
10. 

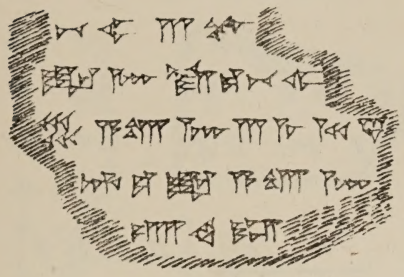
11.

12.

No. 783. [K. 7399.]

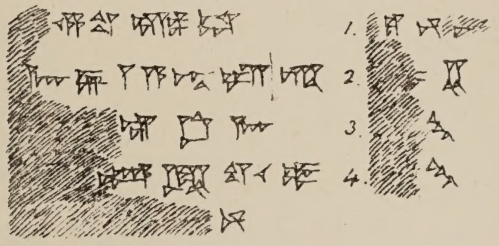


No. 784. [K. 14242.]

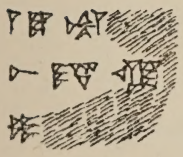


No. 785. [K. 14234.]

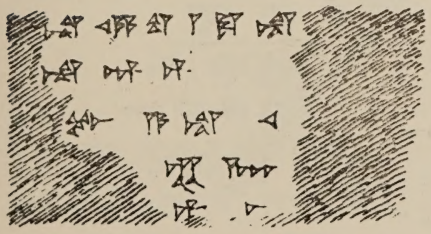
Rev.



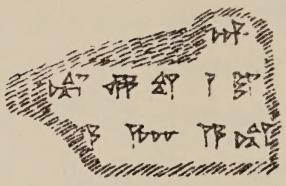
No. 786. [K. 14236.]



No. 787. [K. 14268.]

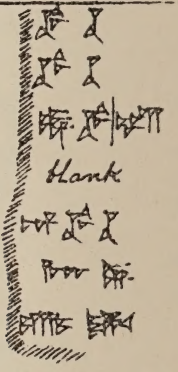


No. 788. [K. 14237.]

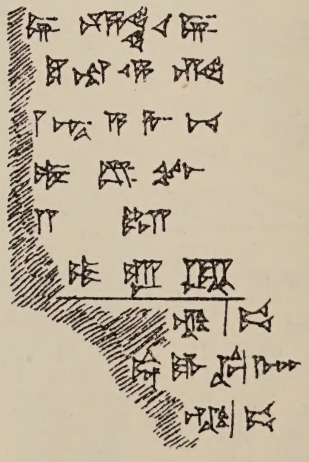


No. 789. [K. 14279.]

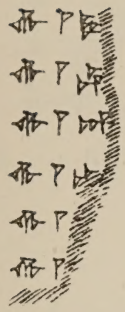
Seal Space.



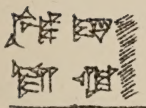
Reverse.



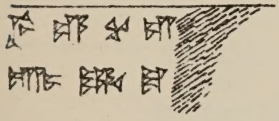
No. 790. [K. 14280.]

1. 
2.
3.
4.
5.
6.

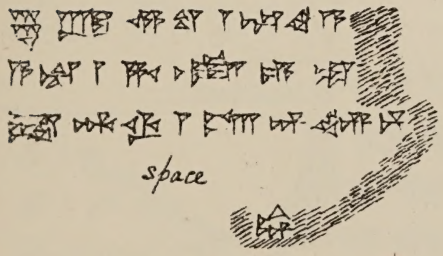
No. 791. [K. 14285.]

1. 
2.

Nail marks.

3. 
4.

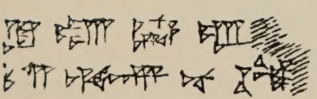
No. 792. [K. 14288.]

1. 
2.
3.

space

4.

No. 793. [K. 14287.]

1. 
2.

3.
4.

No. 794. [K. 14292.]

1.
2.
3.
4.
5.
6.

No. 795. [K. 14289.]

Seal space.

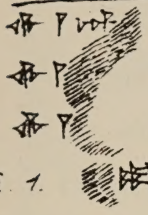
1.
2.
3.

No. 796. [K. 14294.]

Seal space.

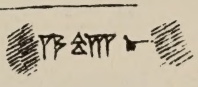
1.
2.
3.
4.
5.
6.

Reverse.

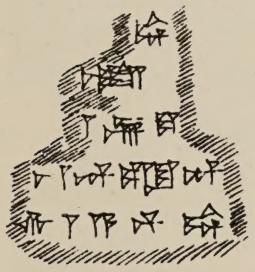
1. 
2.
3.
1-3. 1.

No. 797. [K. 14298.]

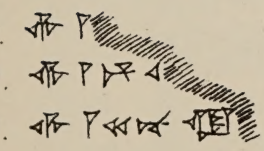
Nail marks.

1. 

No. 798. [K. 14295.]

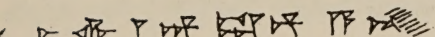
1. 
2.
3.
4.
5.

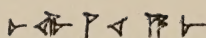
No. 799. [K. 14297.]

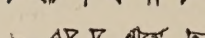
1. 
2.
3.

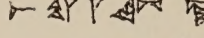
blank space.

No. 800. [K. 14313.]

1. 

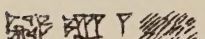
2 

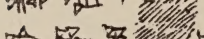
3. 

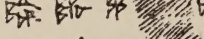
4. 

No. 801 (= 199a).

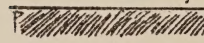
K.399 + K.735 + K.10448 + K.13056.

1. 

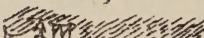
2. 

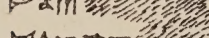
3. 

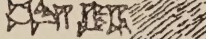
Seal Space.

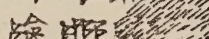
4 

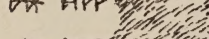
About 7 Lines broken out

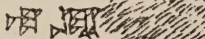
12. 

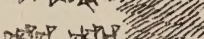
13. 

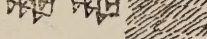
14. 

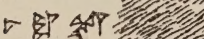
15. 

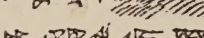
16. 

17. 

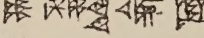
E.(8) 

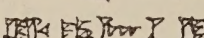
2. 

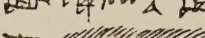
3. 

4. 

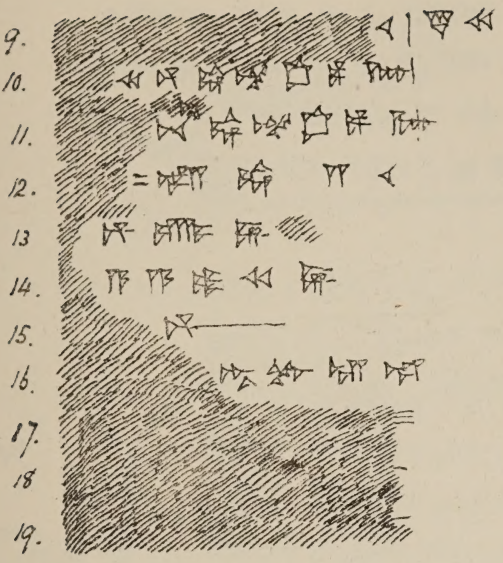
R.1-5 are broken out.

5. 

6. 

7. 

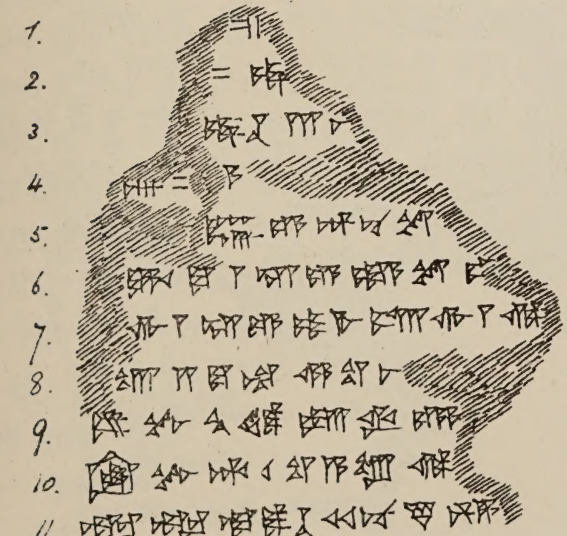
8.



No. 802 = 283a.

No. 282 is upper portion of this.

K. 10412 + 80-7-19, 345.



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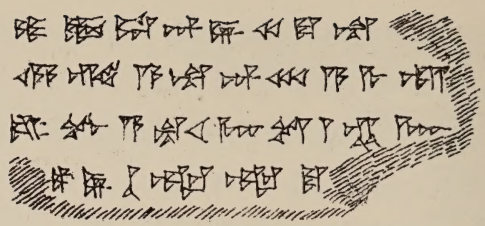

No. 803 = 399a.

K. 11441 + K. 11463.

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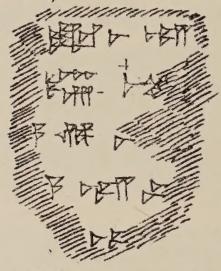

+ ?

R. 1.
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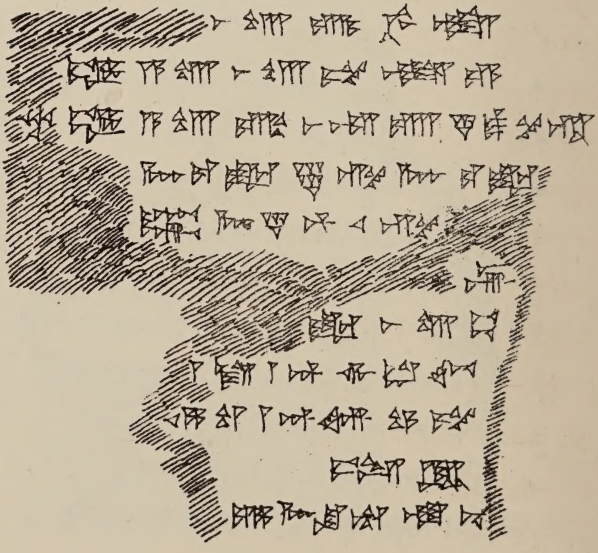
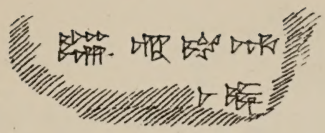


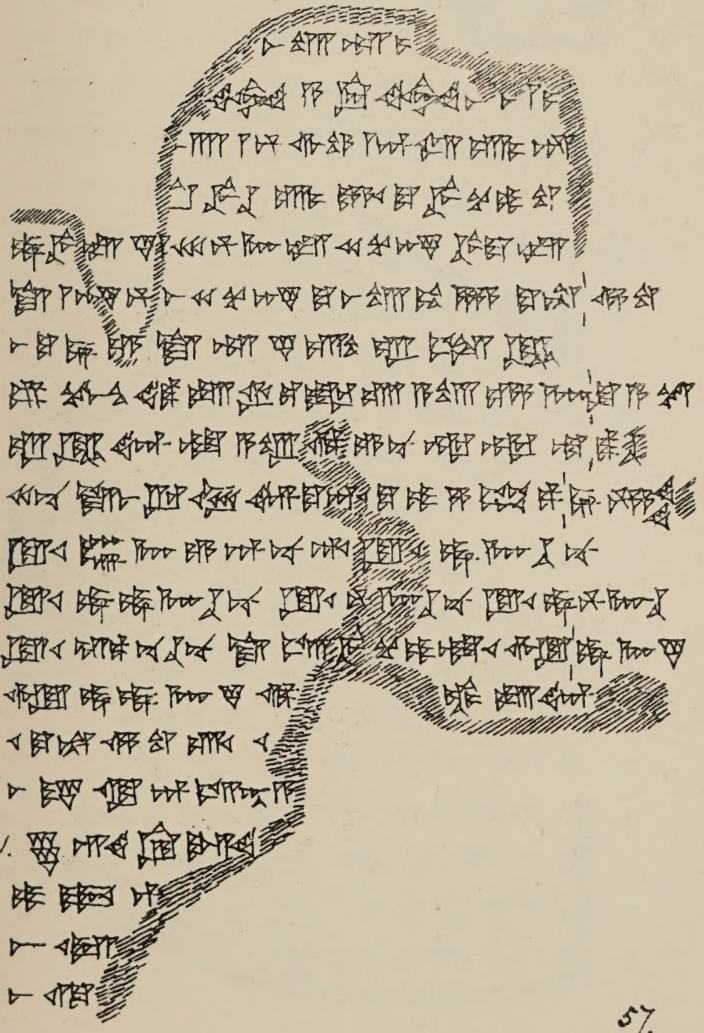
15.

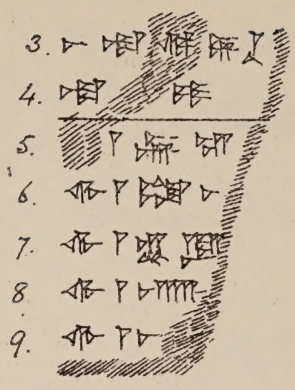
16.



No. 804 = 441 a.

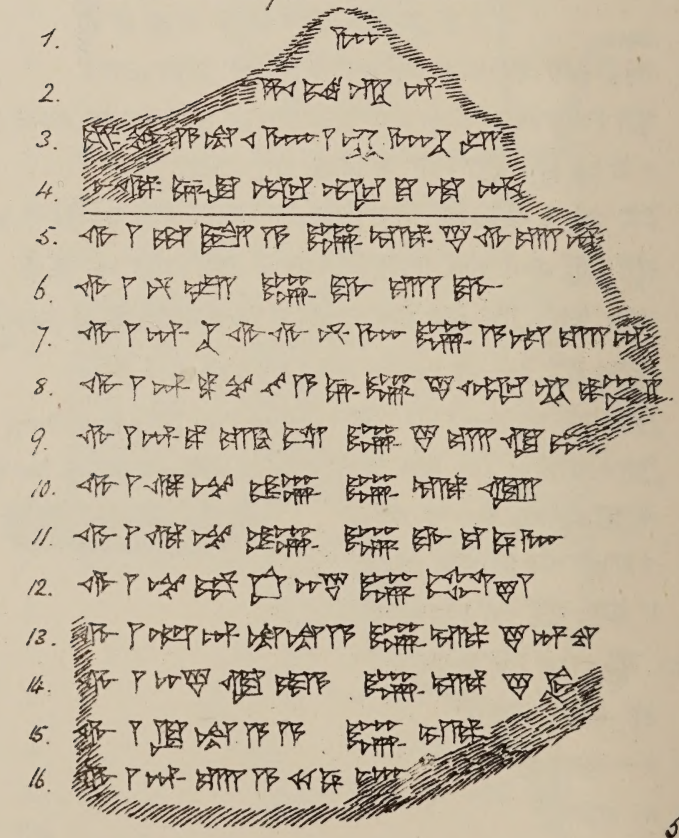
K. 3146 + K. 7379 + K. 7400 + K. 13192.





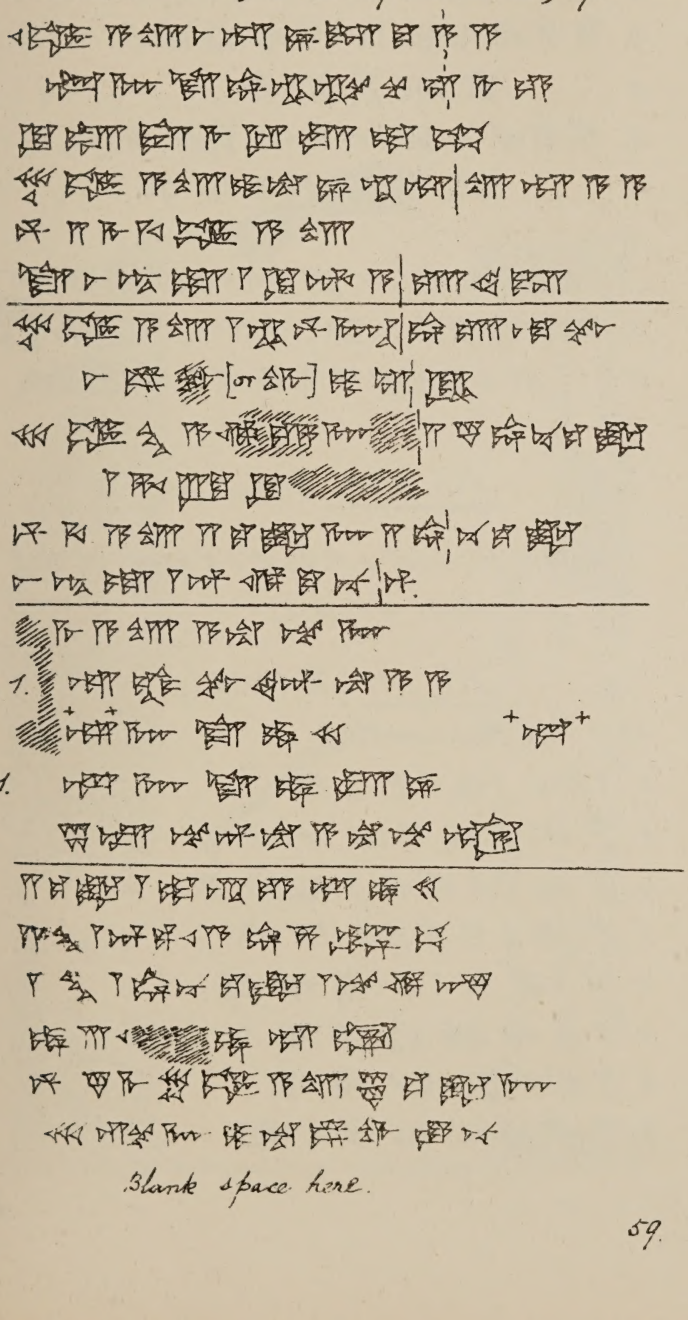
No. 805 = 490a.

K. 3610 + K. 7330 + K. 13114.

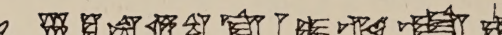
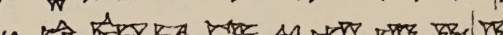
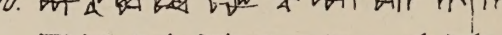
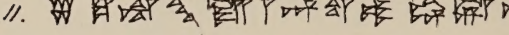
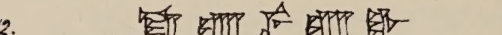
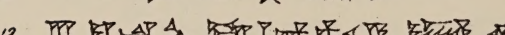


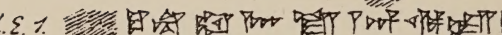
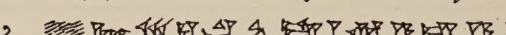
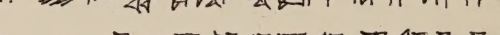
No. 806 = 626a.

K. 13112 + Sm. 189 + Sm. 347 + 82-3-23, 87.



Blank space here.

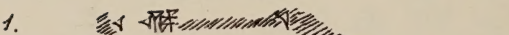
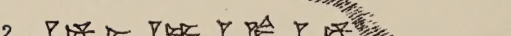
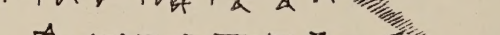
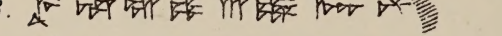
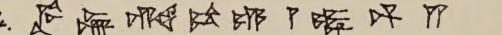
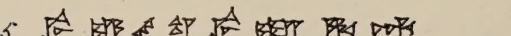
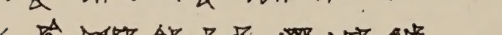
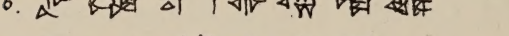
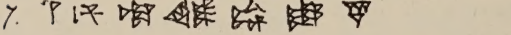
9. 
10. 
11. 
12. 
13. 
14. 

L.E. 1. 
2. 
3. 

No. 807 = 649a. see p. 61.

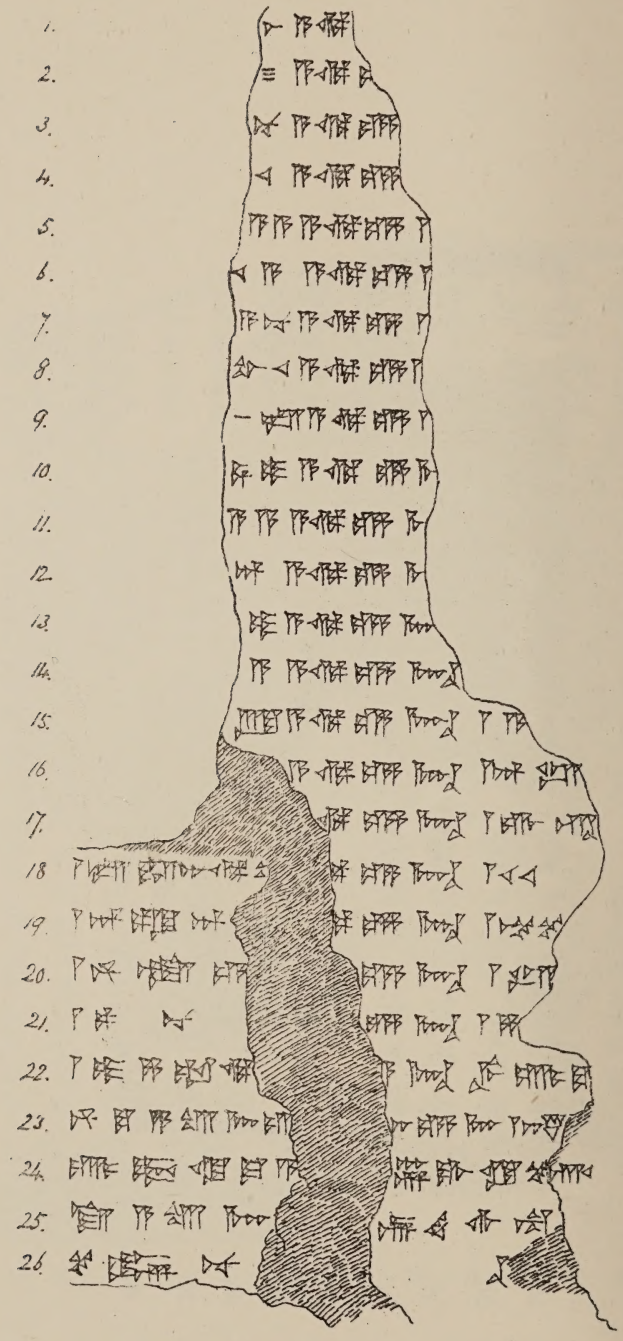
K. 3409 + K. 6065 + K. 6223 + K. 6339 + K. 8856
+ K. 10431 + K. 70727.

No. 811. [K. 3502.]

1. 
2. 
3. 
4. 
5. 
6. 
7. 
8. 
9. 

No. 807.

Reverse.



Seal Space.

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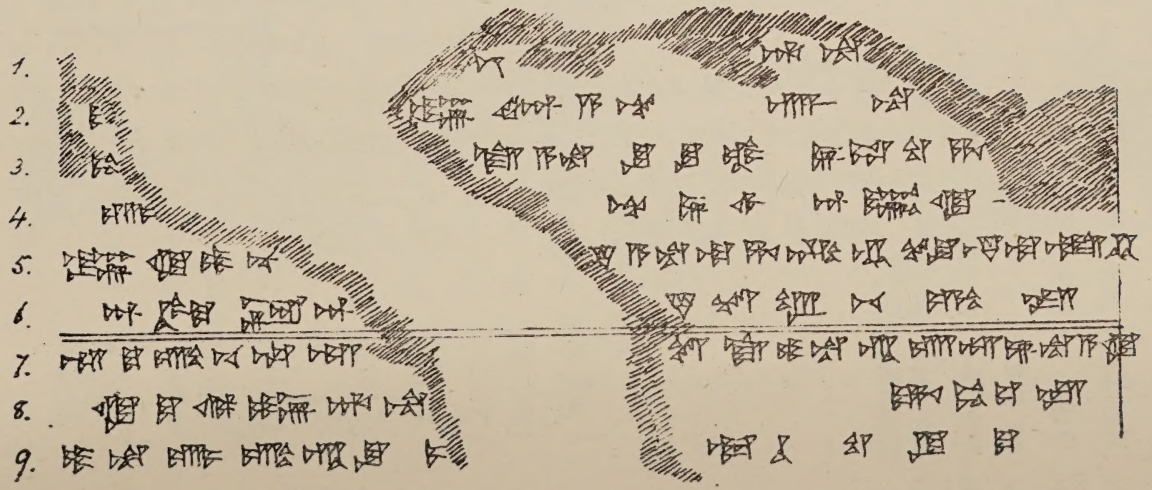
No. 808 = 656 a.

K. 2844 + (K. 3165? +) K. 11454.

No. 809 = 660a.

K. 1939 + K. 4467 + 83-1-18, 425 + Bu. 91-5-9, 193.



Reverse.

No. 811, see p. 60.

No. 812. [K. 954.]

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16. B.E. 1.
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K. 1.
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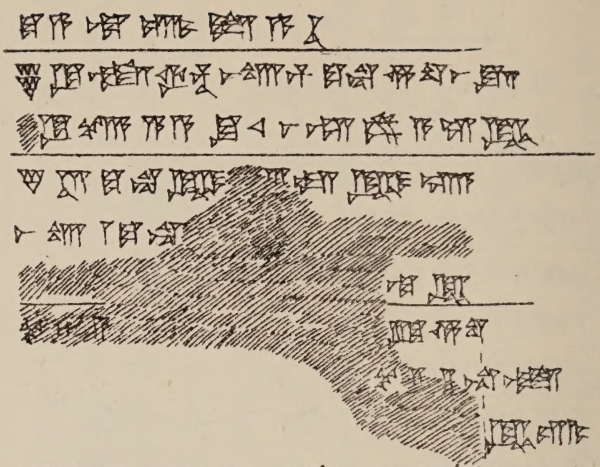
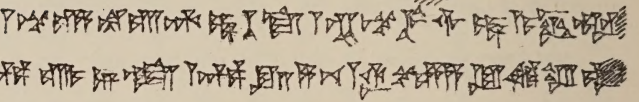
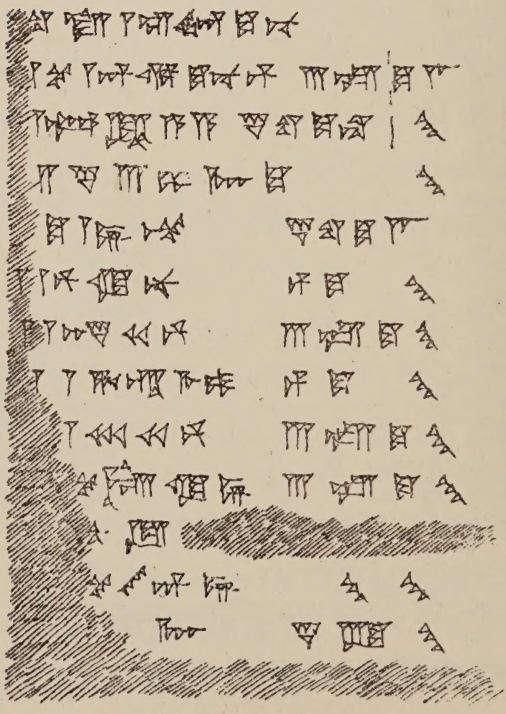
6.



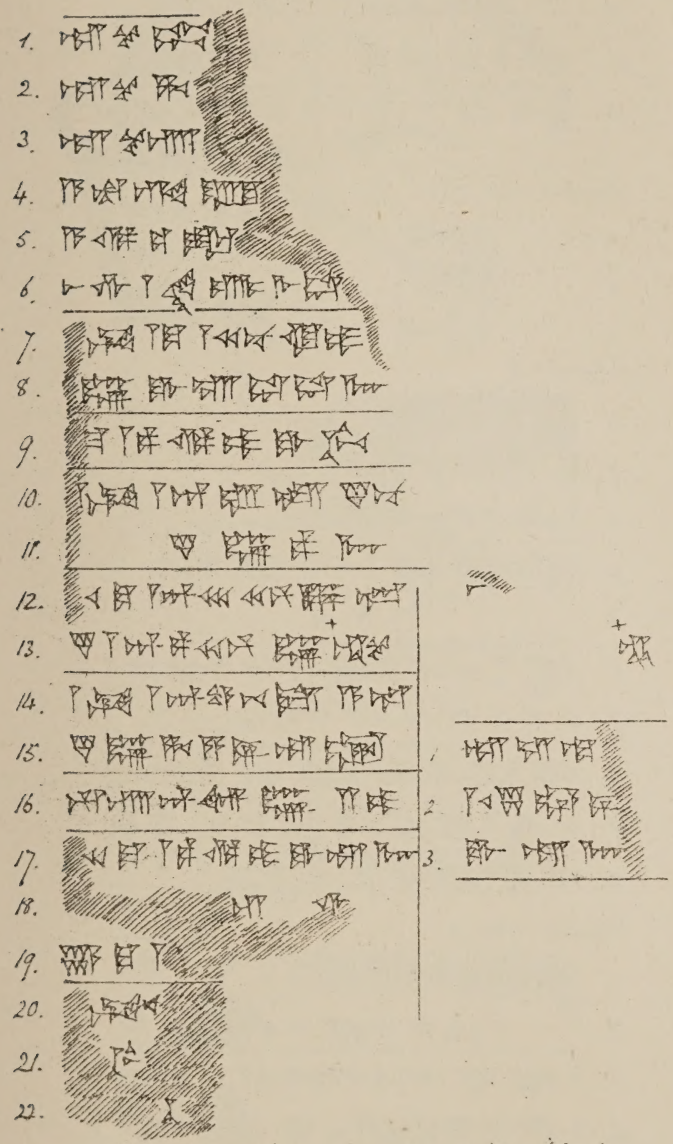
L.E.1.



No. 813. [K.4295.]



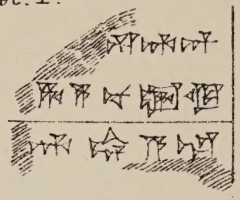
No. 814. [K. 4761.]



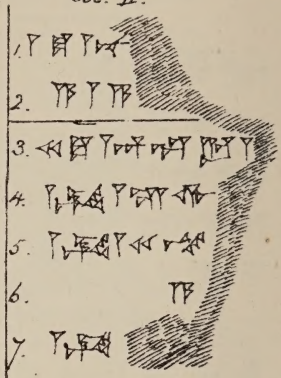
The reverse has a few almost illegible traces of perhaps 10 lines apparently tabular.

No. 815. [K. 8103.]

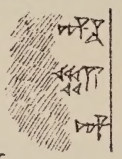
Col. I.



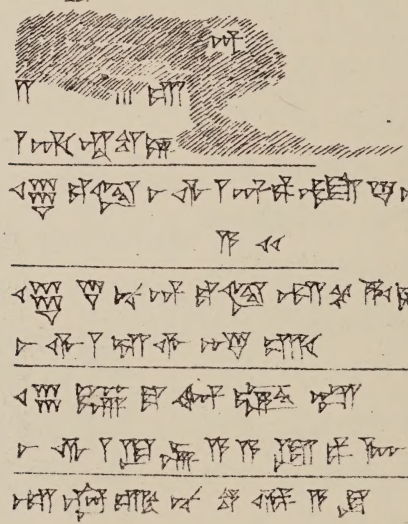
Col. II.



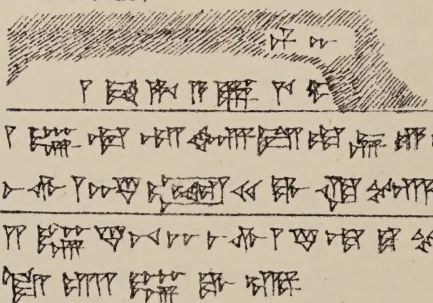
Reverse. Col. I.



Reverse. II.



Reverse. Col. III.



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Reverse, Col. IV.

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3.

No. 816. [82-3-23, 13.]

Col. I.

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Col. II

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2.
3.
4.
5.

1.

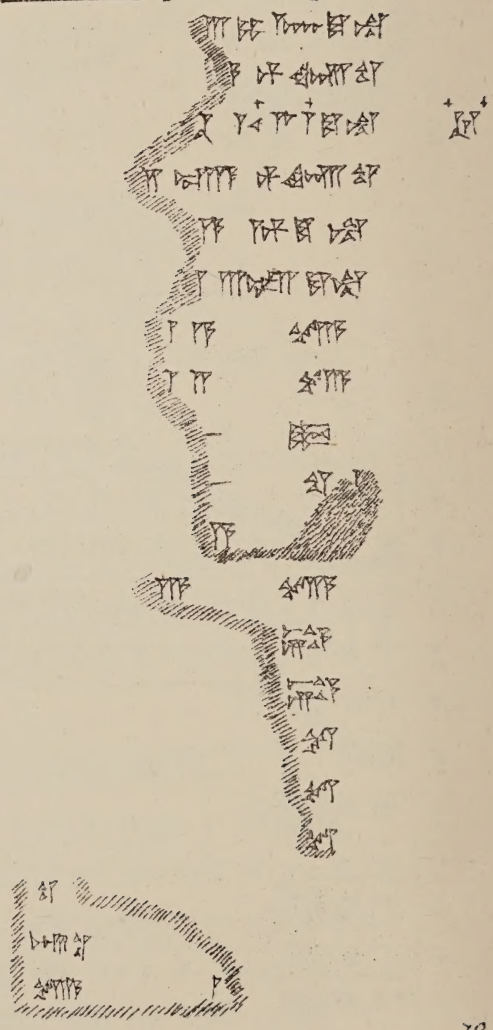
2.

3.

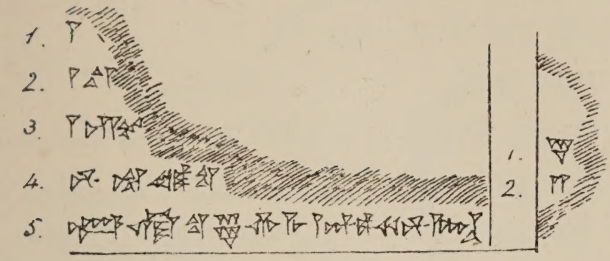
4.

5.

No. 817. [Rm. II. 265.]

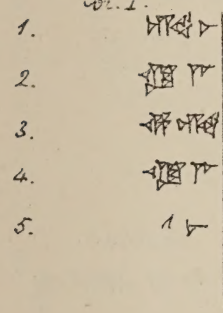


No. 818. [Sm. 469.]

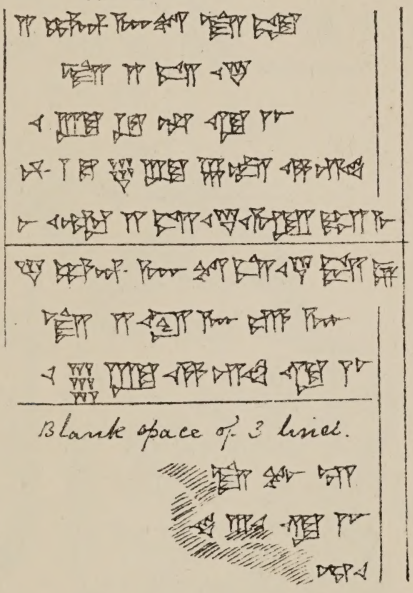


No. 819. [K. 8358.]

Col. I.

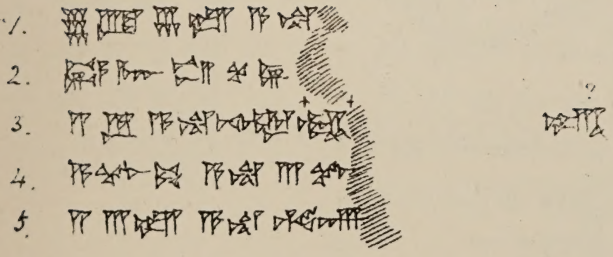


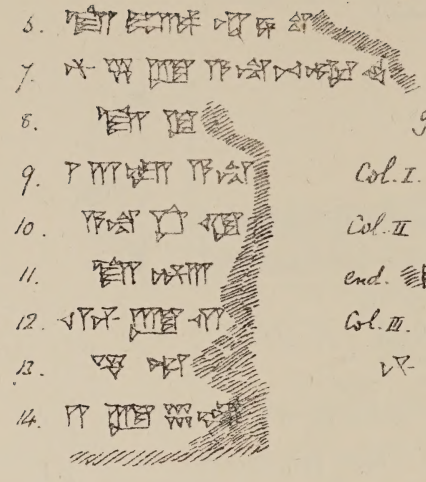
Col. II.



Blank space of 3 lines.

Col. III.





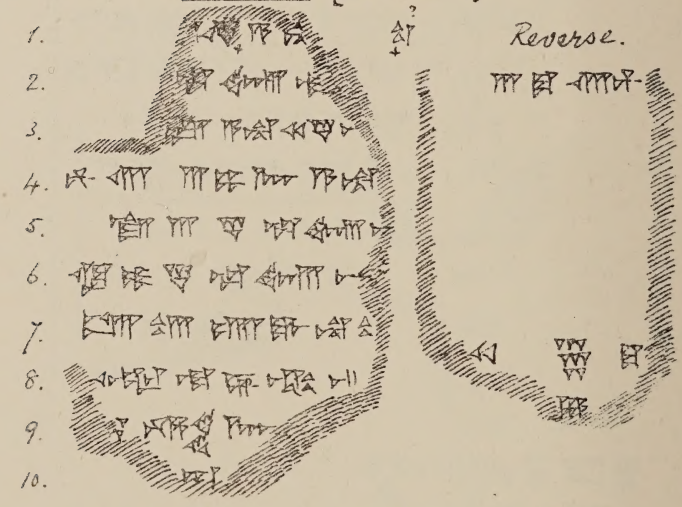
Reverse.

Col. I. at end of last line

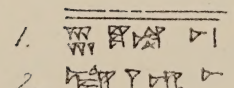
Col. II about 7 lines from the end.

Col. III. Beginning of last line

No. 820. [K. 11941.]



No. 821. [K. 14247.]



3.

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No. 822. [K. 14237.]

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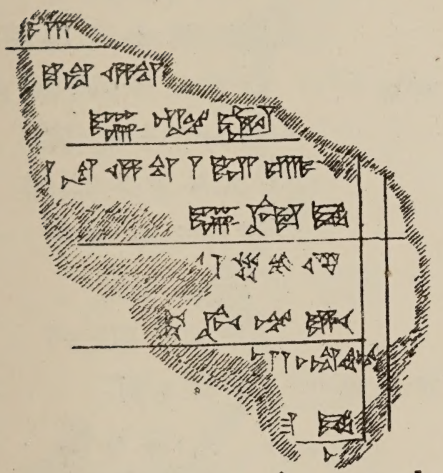

No. 823. [K. 4742.]

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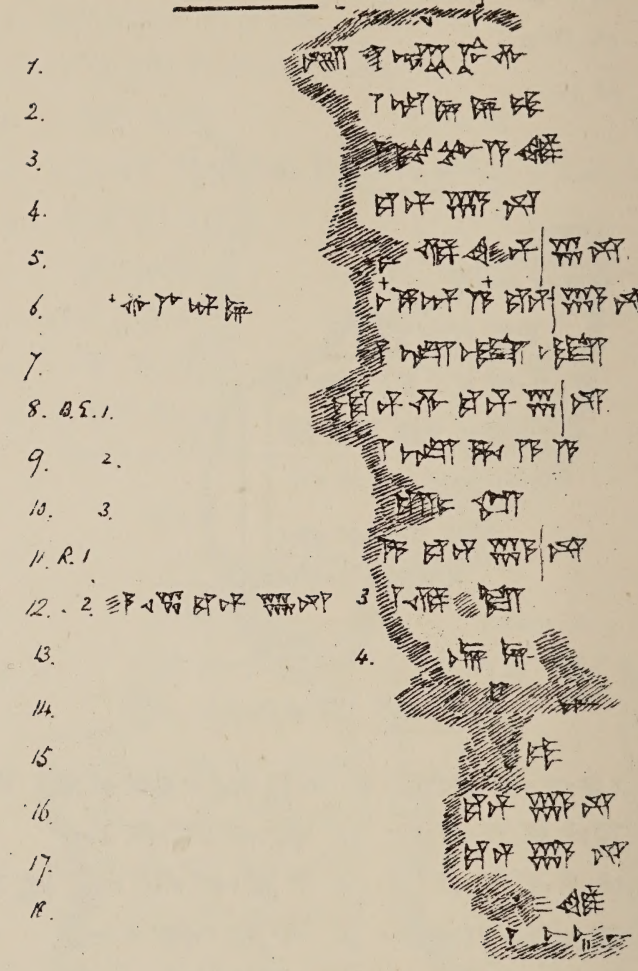
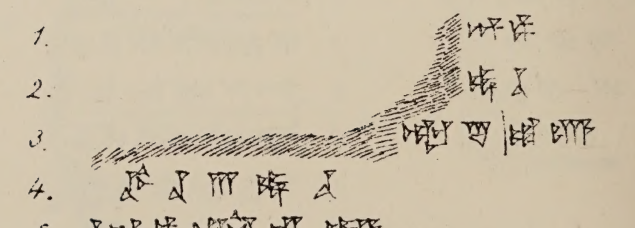
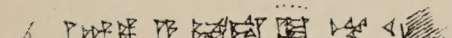
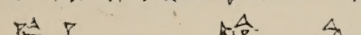
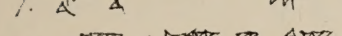
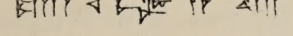
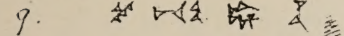
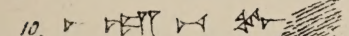
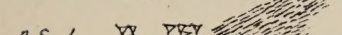
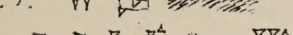
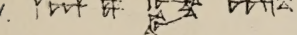
No 824. [Rm. 1016.]



No. 825. [K. 859.]



6. 
7. 
8. 
9. 
10. 
B.E. 1. 
R. 1. 
2. 
3. 
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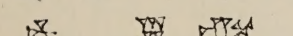
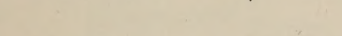
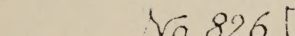
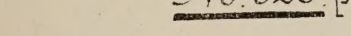
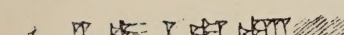
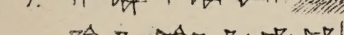
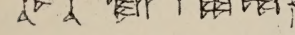
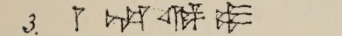
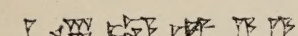
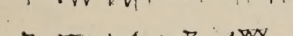
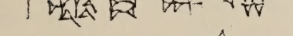
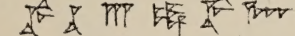
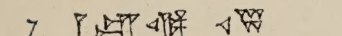
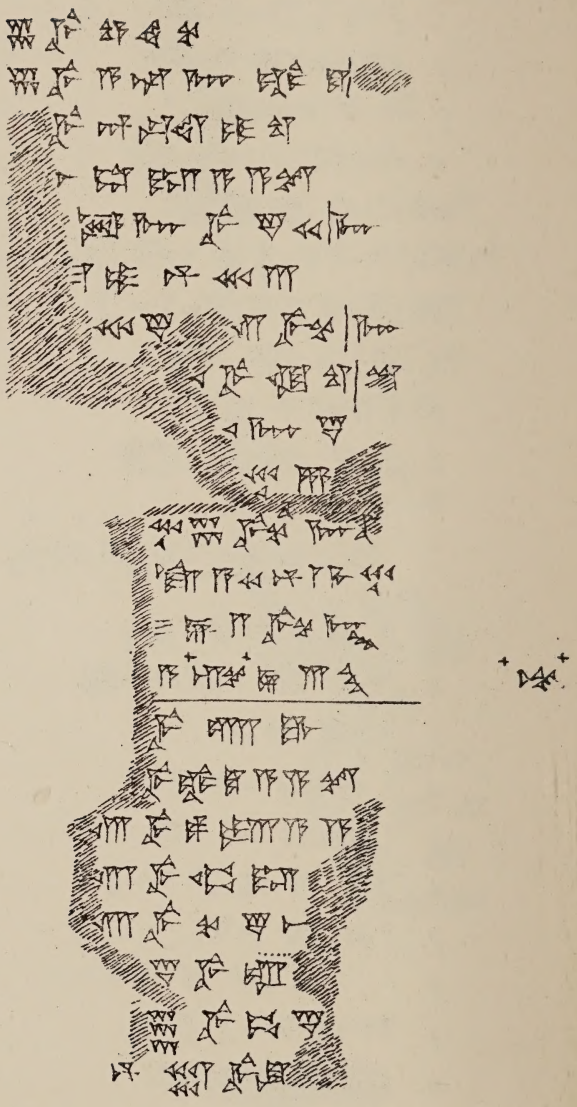
5. 

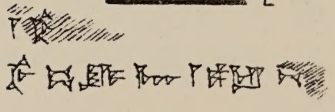
No. 826 [K 859] 897

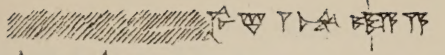
1. 
2. 
3. 
4. 
5. 
6. 
7. 
8. 
9. 
10. 
R. 1. 
2. 

No. 827. [K. 1473.]



No. 828. [82-3-23, 9.]



3. 
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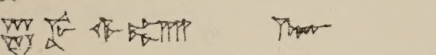
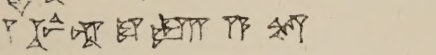
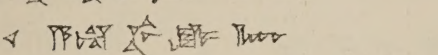
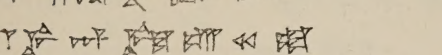
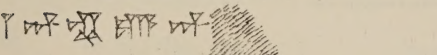
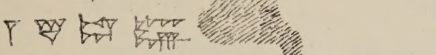
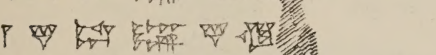
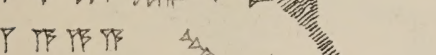
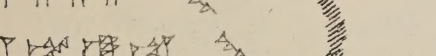
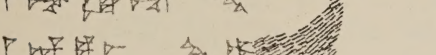
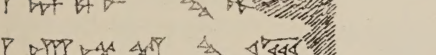
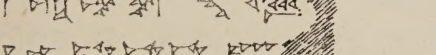
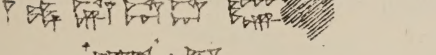
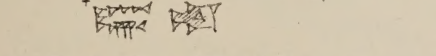
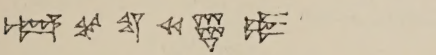
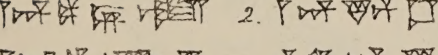
5. 
6. 
7. 
8. 

No. 829. [K. 7499.]

1. 
2. 
3. 
4. 
5. 
6. 
7. 

R. 1. 
2. 
3. 
4. 

No. 830. [K. 12994.]

1. 
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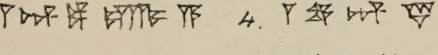
3. 
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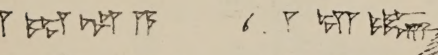
5. 
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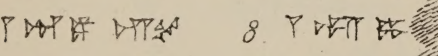
7. 
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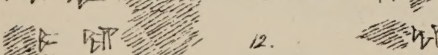
11. 
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No. 831. [K. 1431.]

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B.S. 1. R. 1.

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No. 832. [Bu. 89-4-26, 124.]

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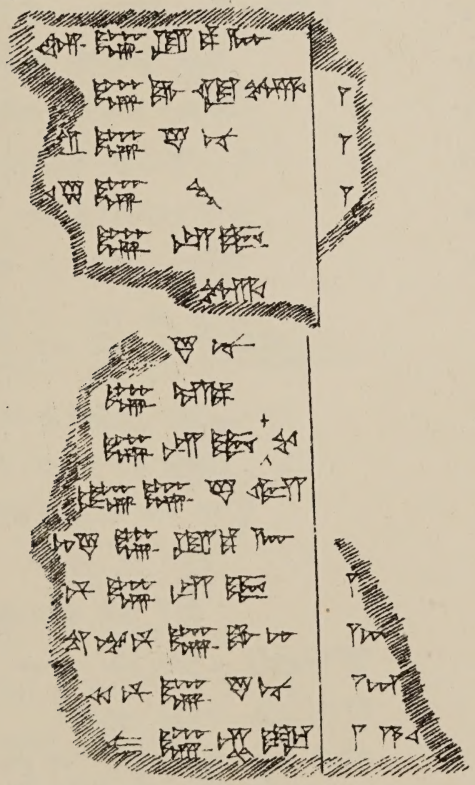
No. 833. [83-1-18, 396.]



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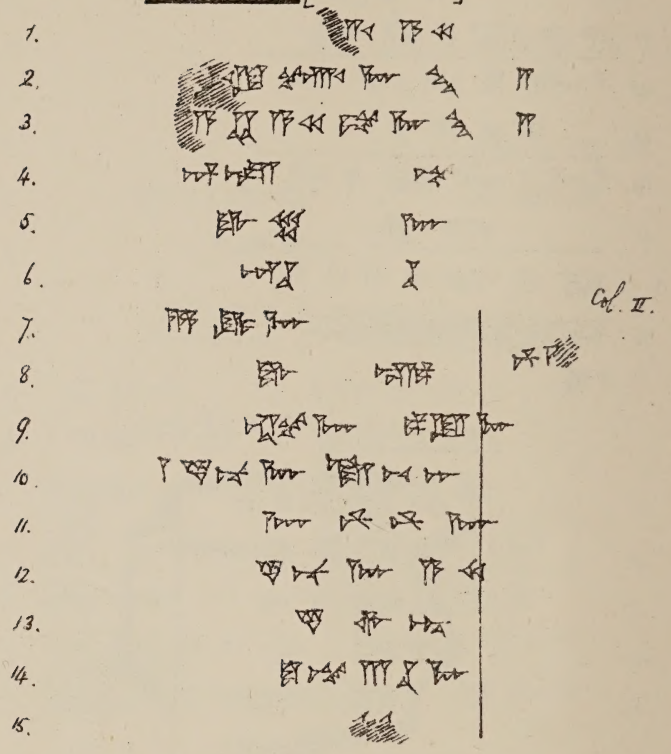
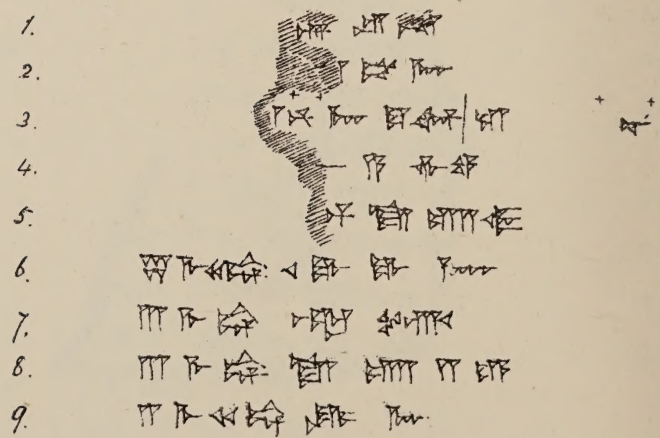
No. 834. [K. 13198.]



No. 835. [82-5-22, 112.]



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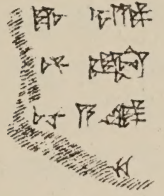
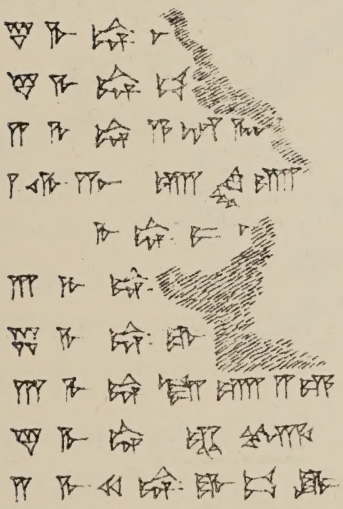


No. 835. [83-1-18, 599.]



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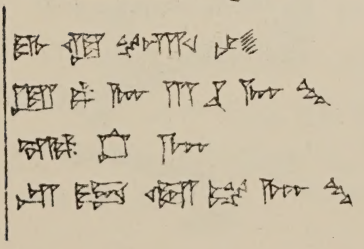
No. 837. [K. 7702.]



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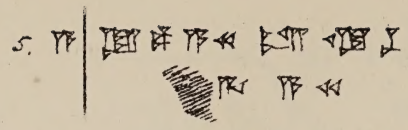
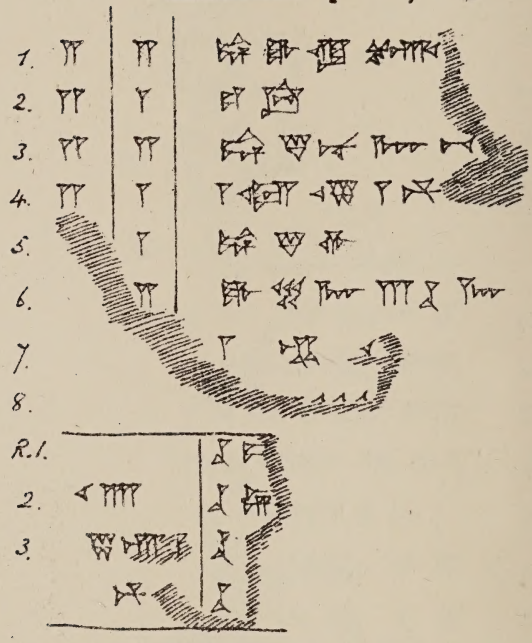
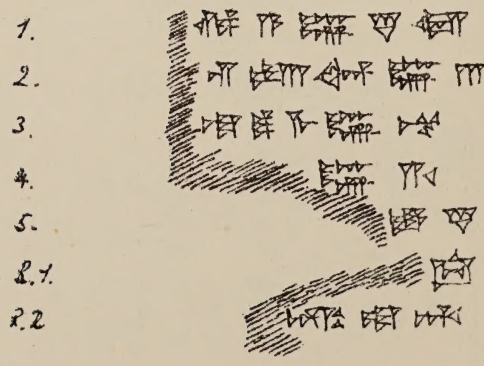


No. 838. [K. 4672.]

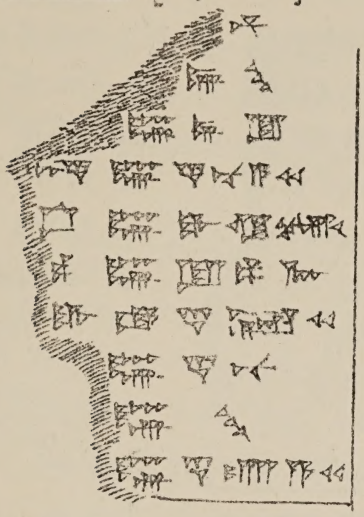


No. 839. [83-1-18, 457.]

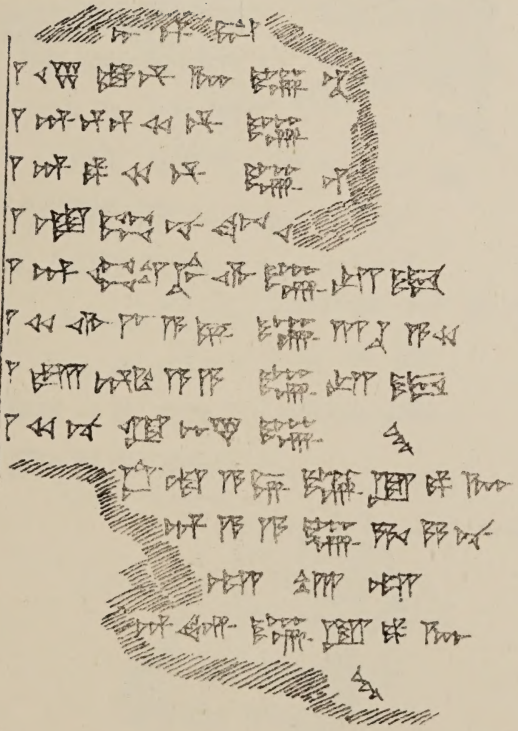


No. 840. [K 7387.]

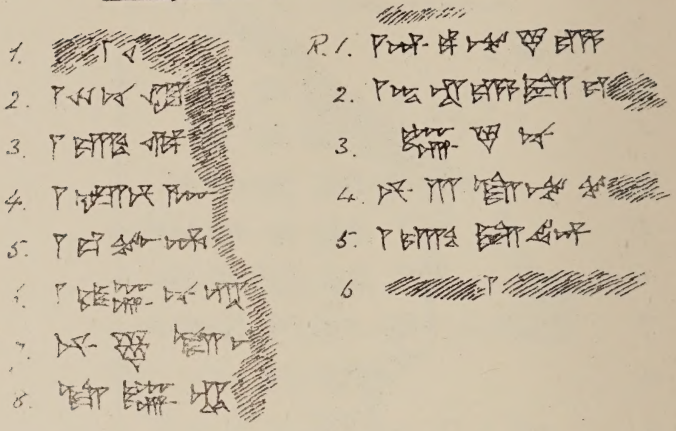
Col. I.



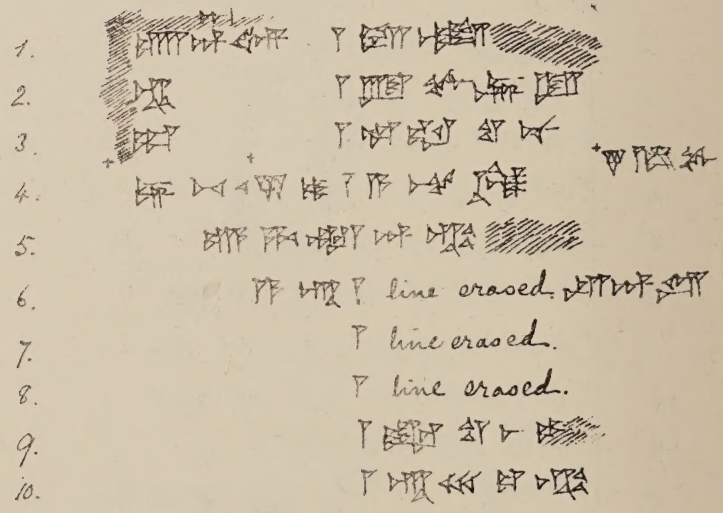
Col. II



NO. 841. [81-2-4, 501.]

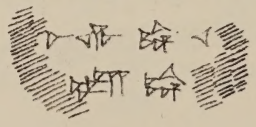


NO. 842. [K. 4769]



Reverse trace of four lines.

NO. 843. [K. 13190.]



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No. 844. [80-7-19, 347.]

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2. mere trace . blank

3. mere trace . blank.

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No. 845. [82-3-23, 136.]

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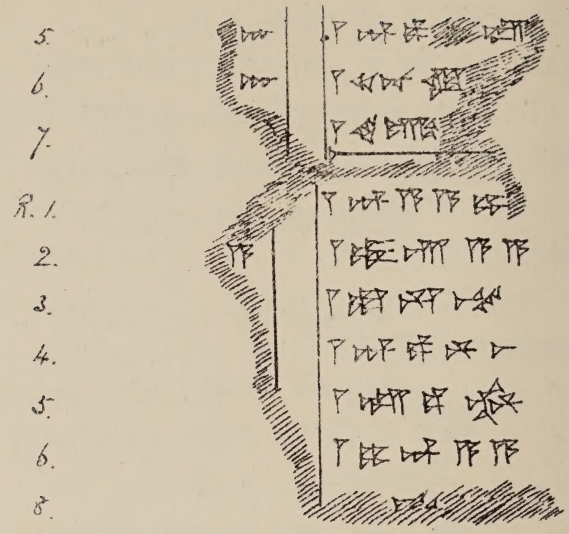
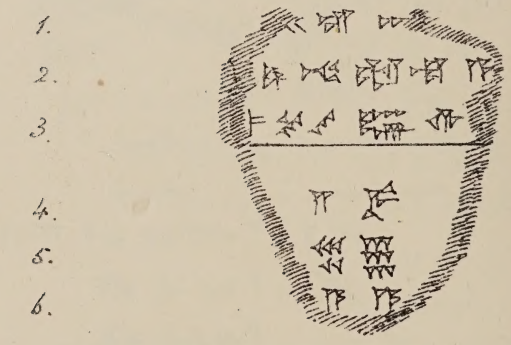
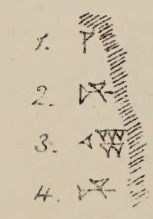


No. 846. [83-1-18, 896.]



No. 847. [K. 13039.]



R.1.
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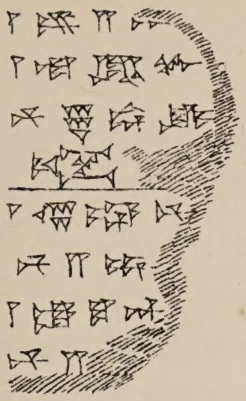

No. 848. [83-1-18, 715.]

1.
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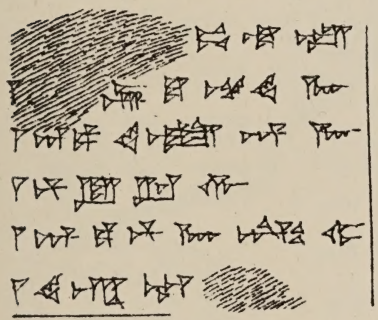

No. 849. [K. 13029.]

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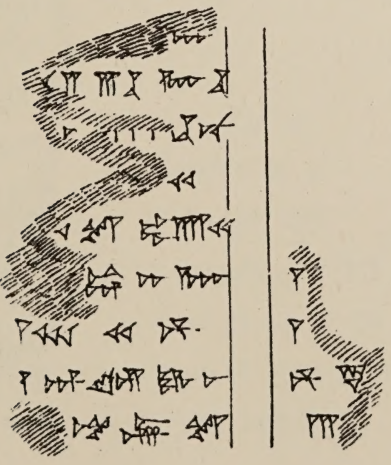
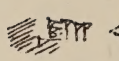
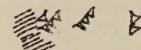
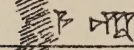
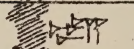
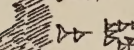
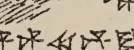
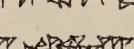
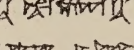
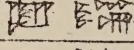
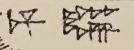
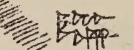
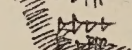
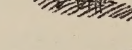
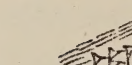
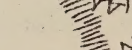
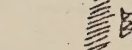
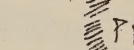
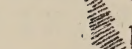
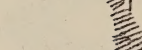
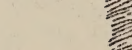


10. 

NO. 850. [83-1-18, 594.]

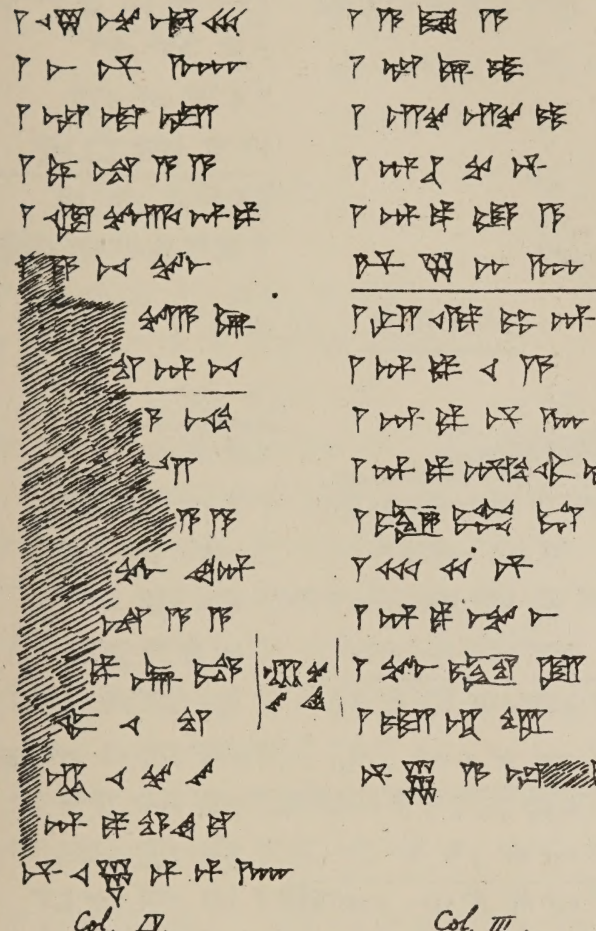
1. 
2. 
3. 
4. 
5. 
6. 
7. 
8. 
9. 
10. 

R. 1. 
2. 
3. 
4. 
5.
6.
7. 
8. 
9. 

R. 2. 1.
2. 
3. 

No. 851 [K. 1276.]

Col. I. Col. II



Col. IV. Col. III.

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No. 852. [K. 1995.]

Col. I.

Col. II.

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17.

Col. IV. Col. III.

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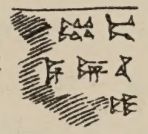
3. Seal.

No. 853. [K. 9921]



1.

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13.

1. Col. II. on level of I. 6.

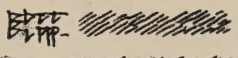
2. on level of I. 8.

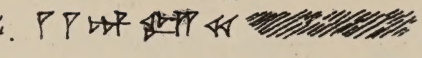
3. on level of I. 9.

Reverse. Col. III.

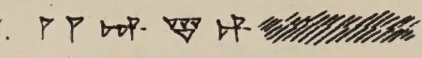
1.

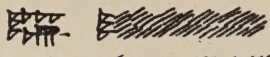
2.

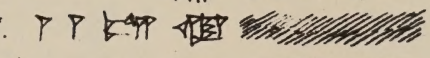
3. 

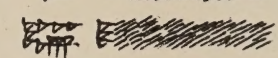
4. 

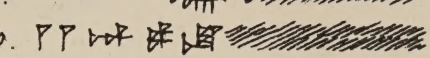
5. *line erased.*

6. 

7. 

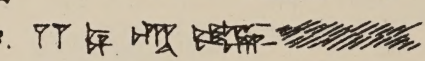
8. 

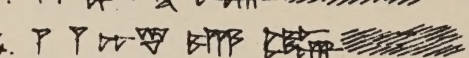
9. 

10. 

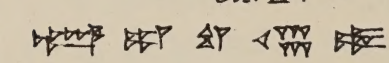
11. *line erased.*

12. *line erased*

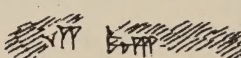
13. 

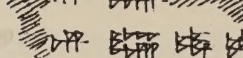
14. 

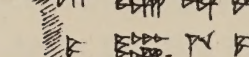
Col. II.

1. 

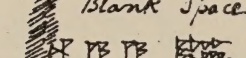
No. 854. [83-1-18, 347.]

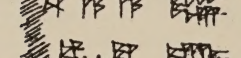
1. 

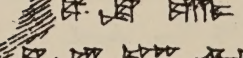
2. 

3. 

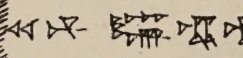
4. *Blank space.*

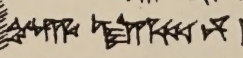
5. 

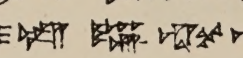
6. 

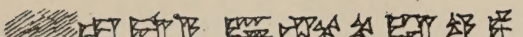
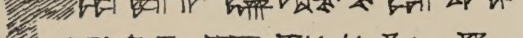
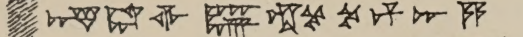
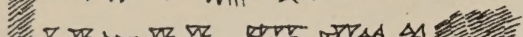
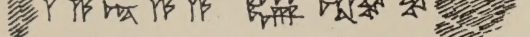
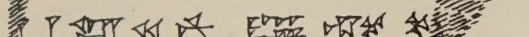
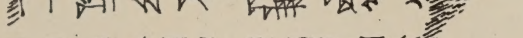
7. 

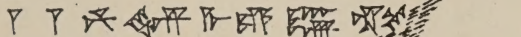
8. *Blank space.*

9. 

10. 

11. 

12. 
13. 
14. 
15. 
16. 
17. 
18. 

R. 1. 

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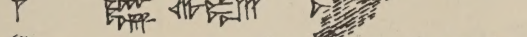
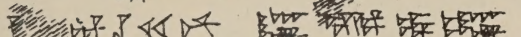
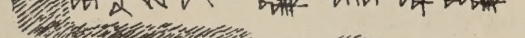
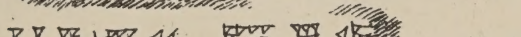
2. 
3. 
4. 
5. 

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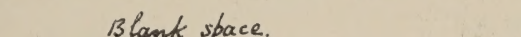
6. 

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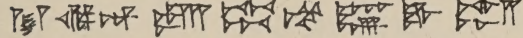
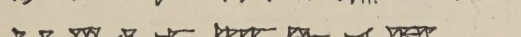
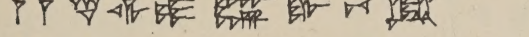
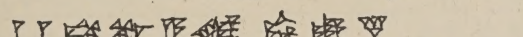
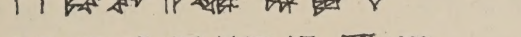
7. 
8. 
9. 
10. 
11. 

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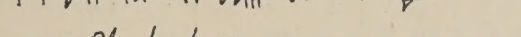
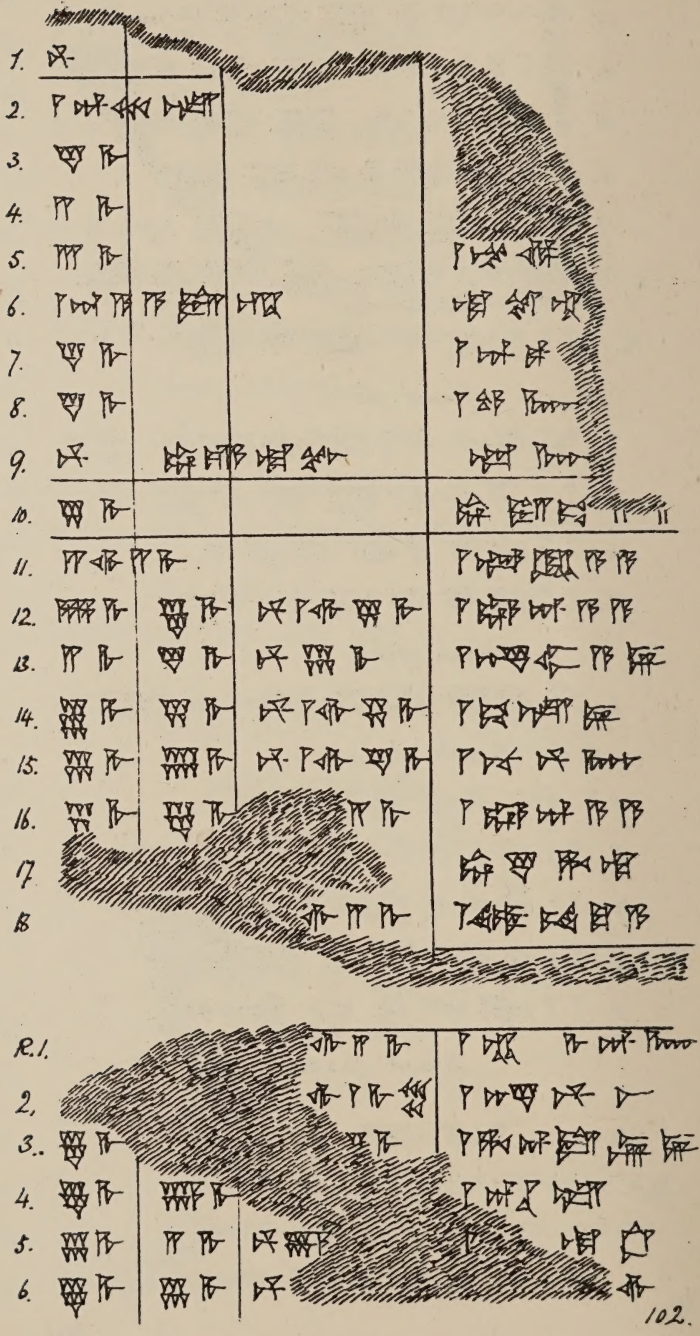
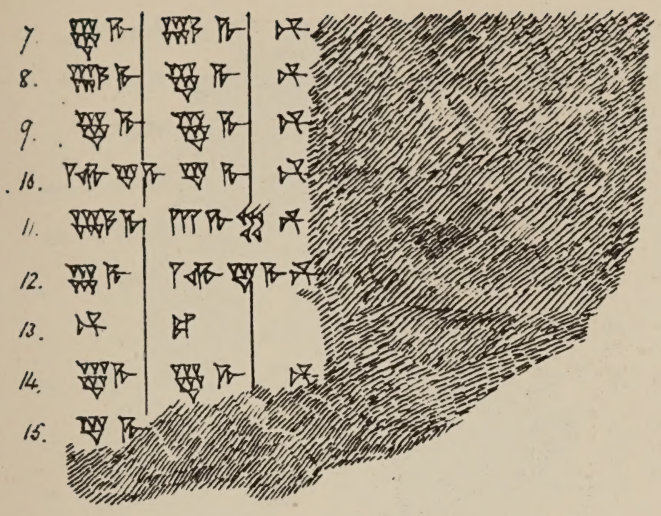
12. 

No. 855. [K. 8093.]





No. 856. [83-1-18, 239.]

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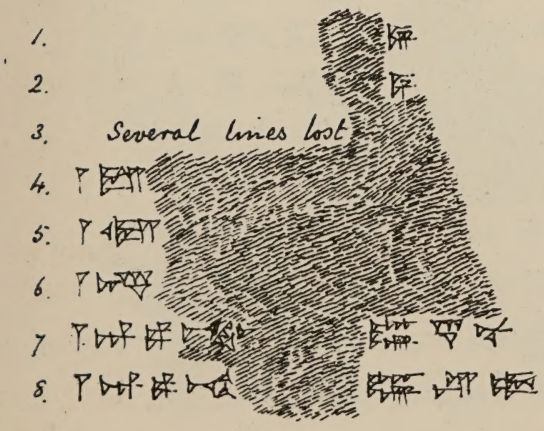
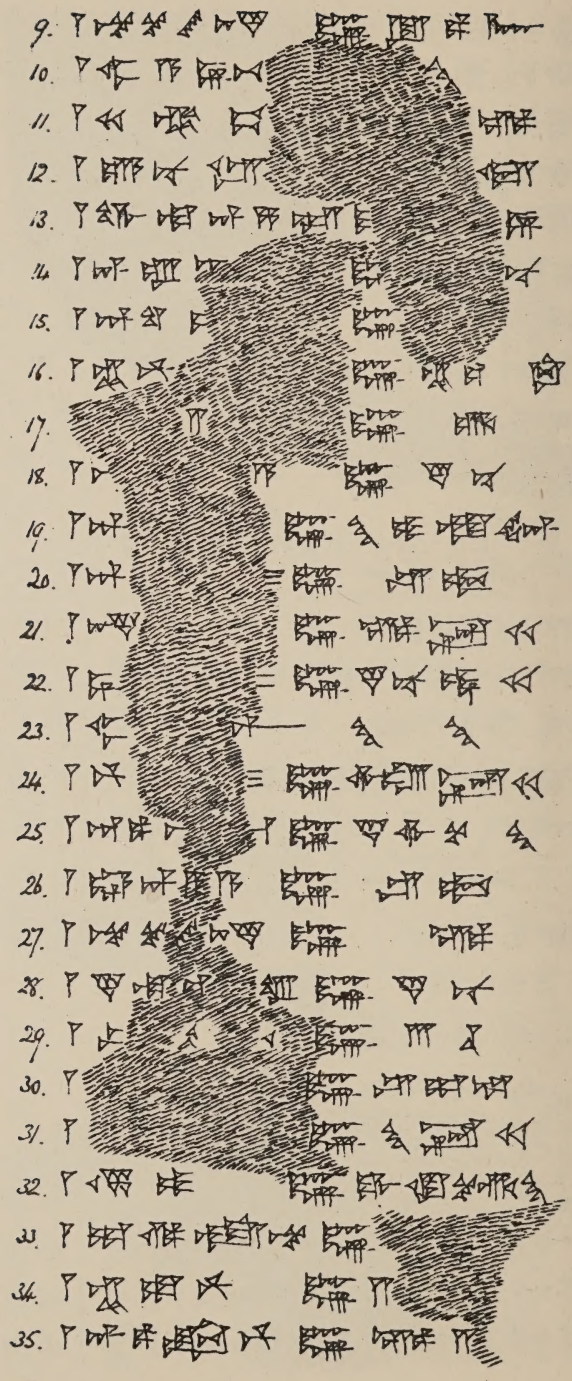
No. 857. [K. 1359.]

Col. I.





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Col. II.

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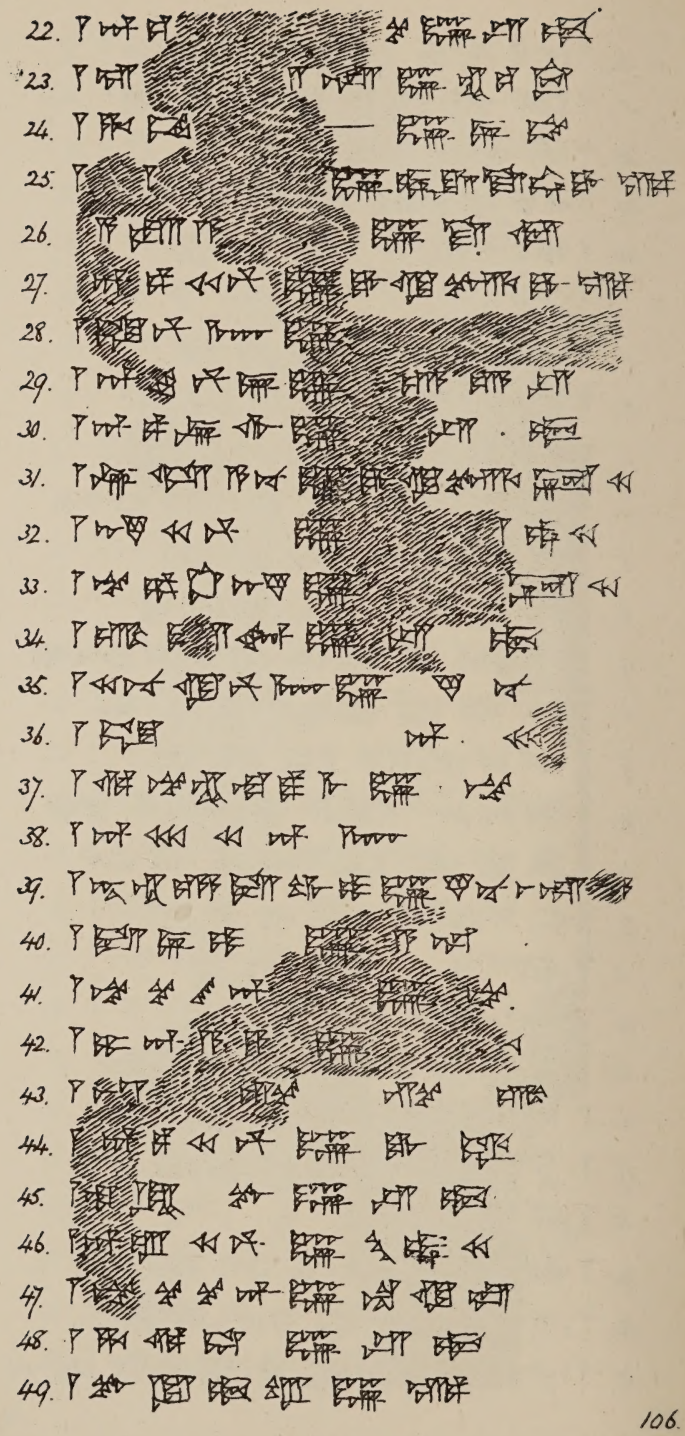
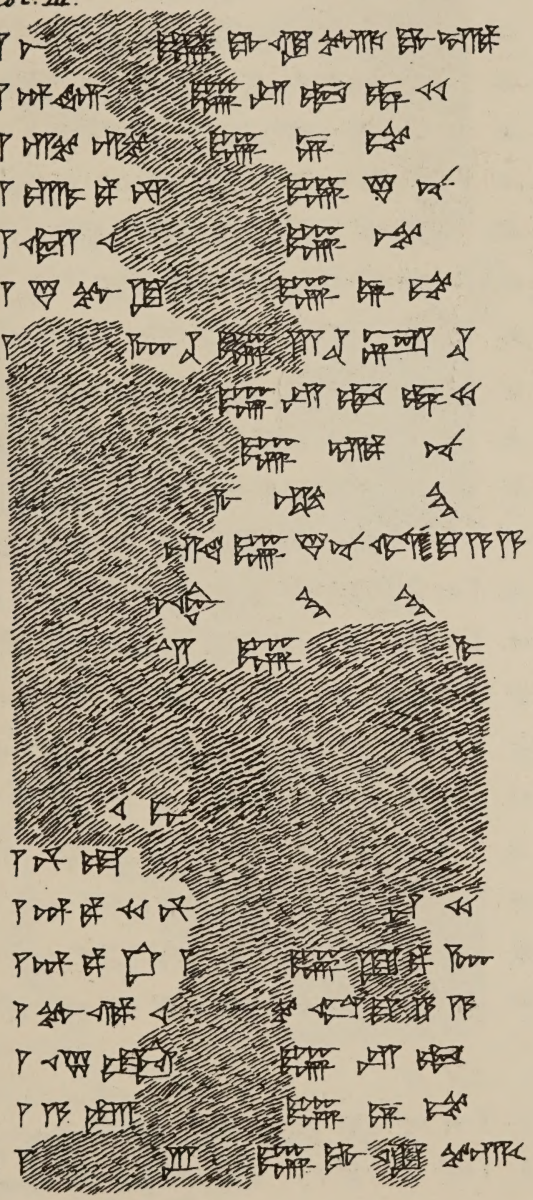


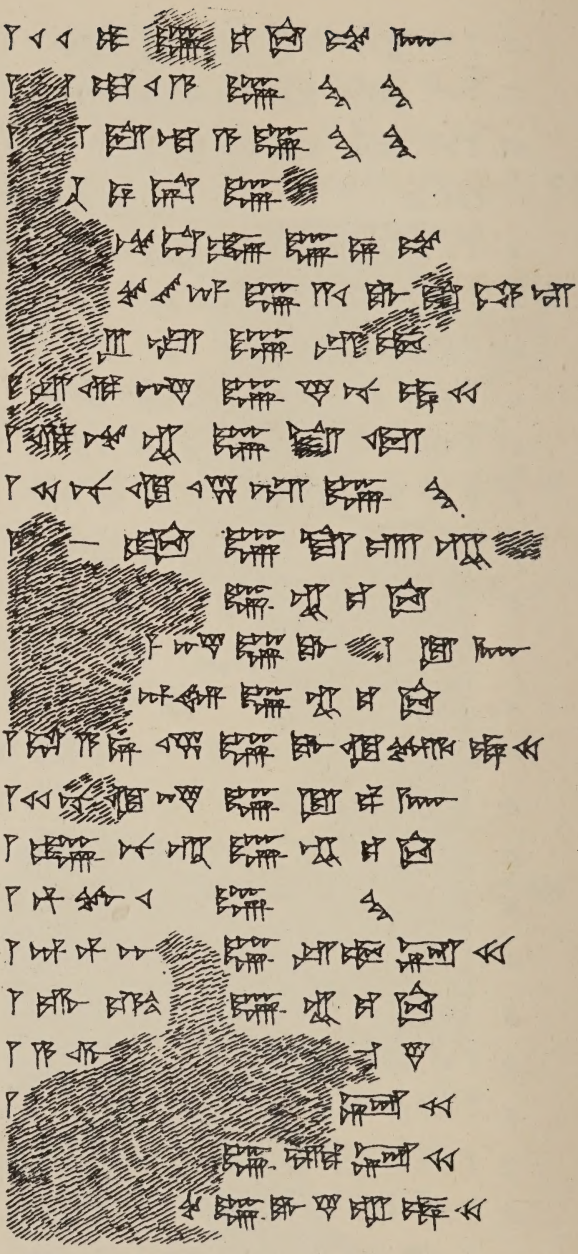
50.

57.

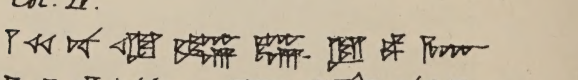
52.

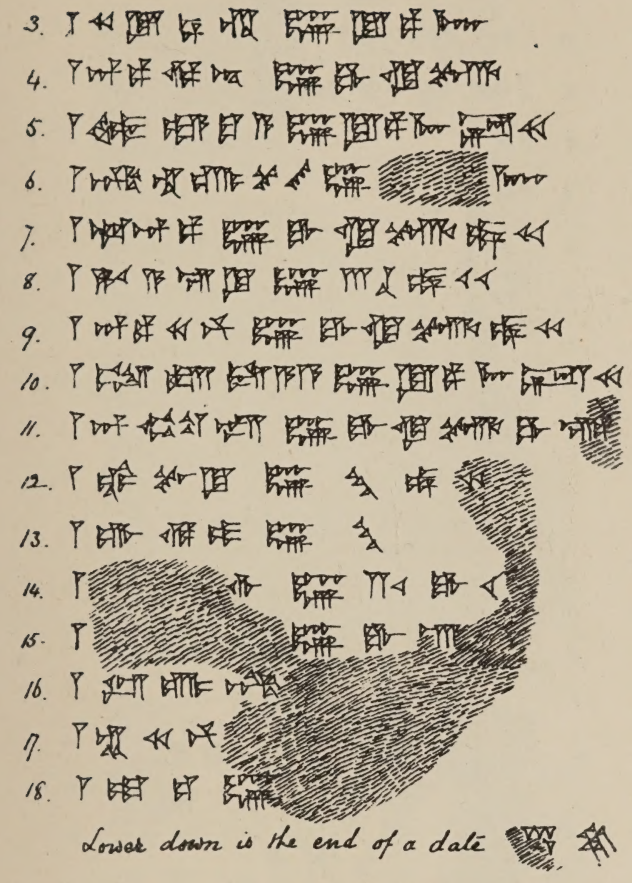
Col. III.





Col. IV.





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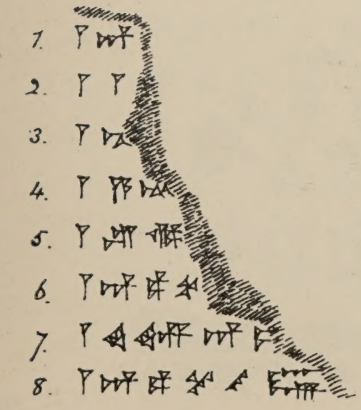
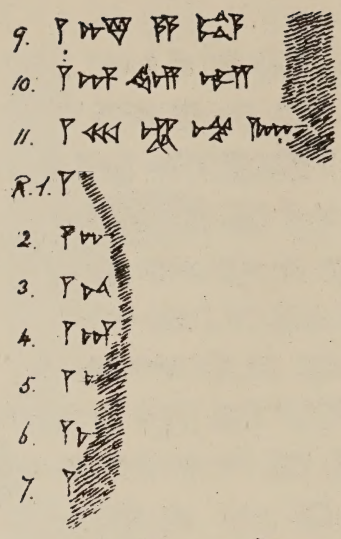
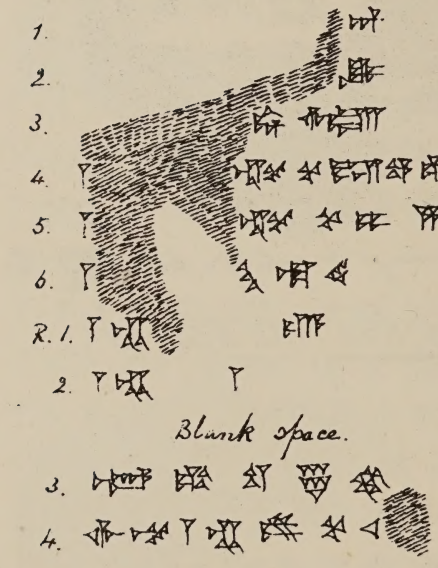
No. 858. [82-3-23, 99.]

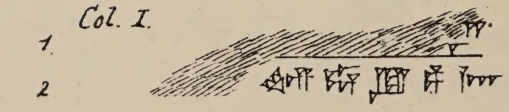


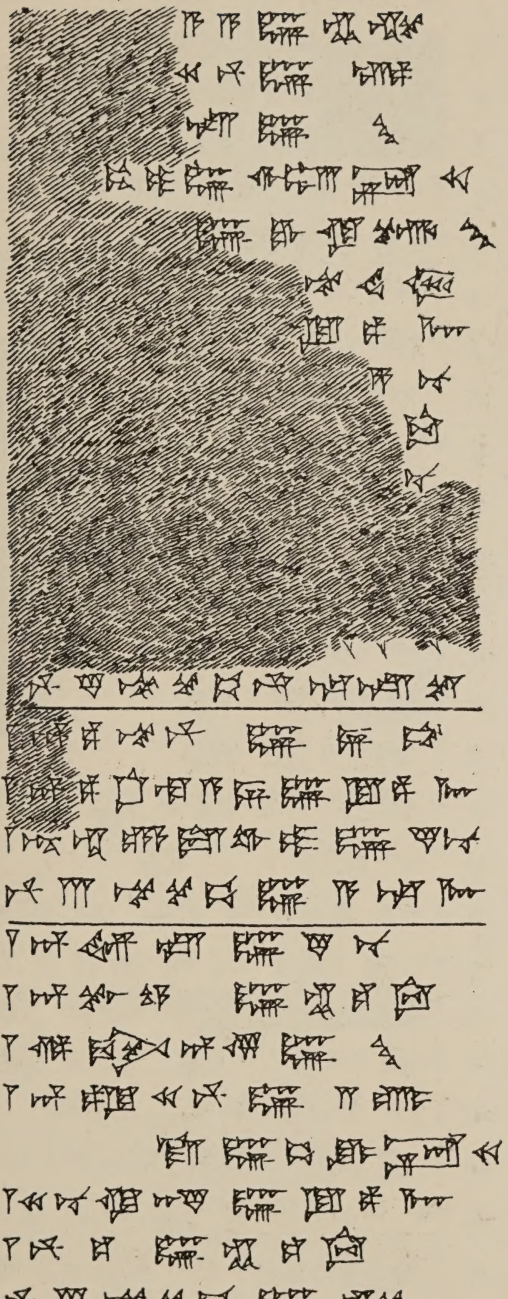


No. 859. [Bu. 91-5-9, 120.]

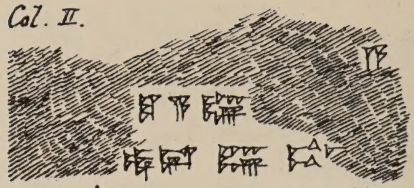


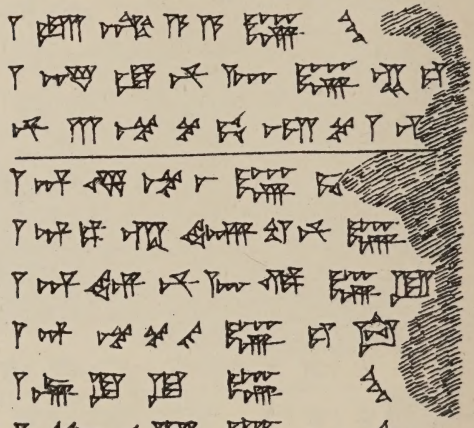
No. 860. [K. 8143.]

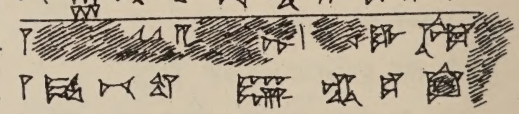


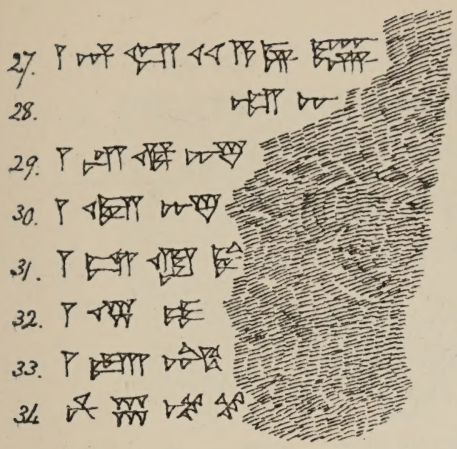


Col. II.









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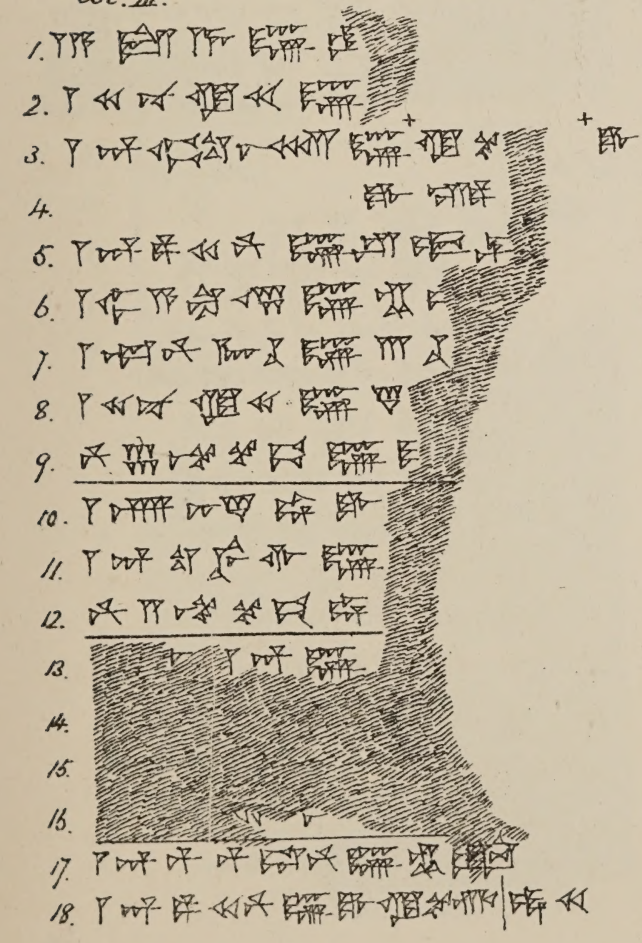
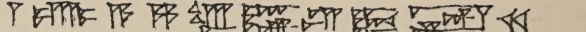
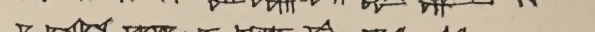
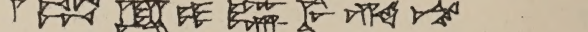
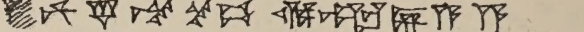
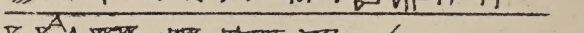
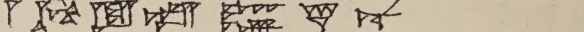
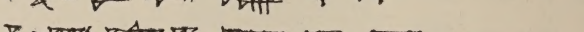
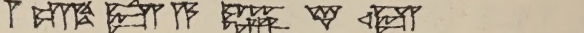
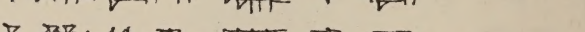
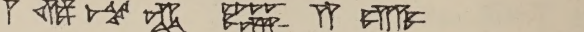
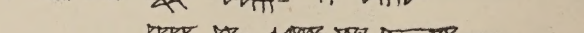
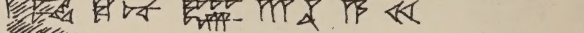
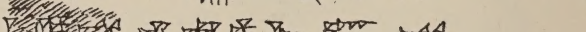


19. 
20. 
21. 

22. 
23. 
24. 
25. 
26. 
27. 
28. 
29. 

Col. IV.

1. 
2. 
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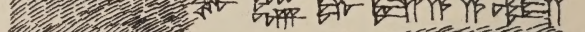
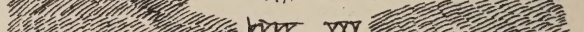
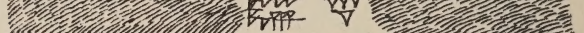
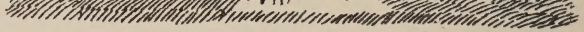
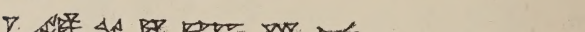
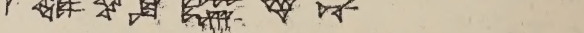
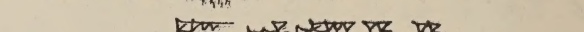
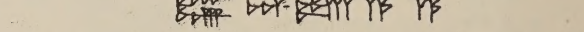
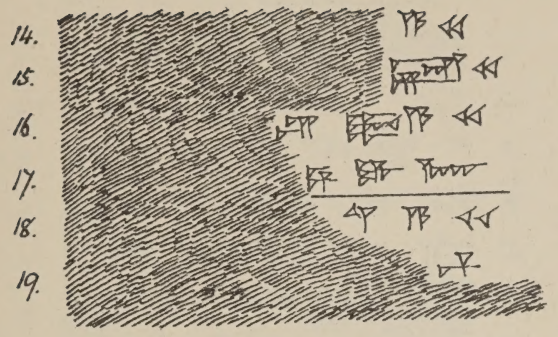
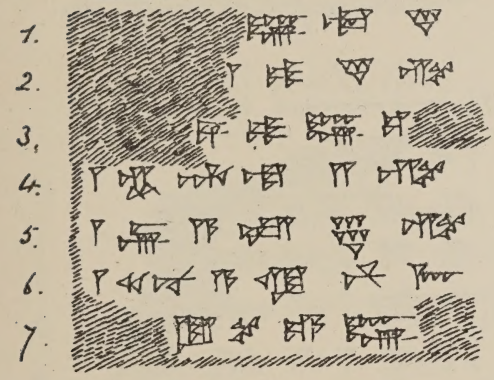
4. 
5. 
6. 
7. 
8.
9. Two blank lines
10. 
11. 
12. 
13. 

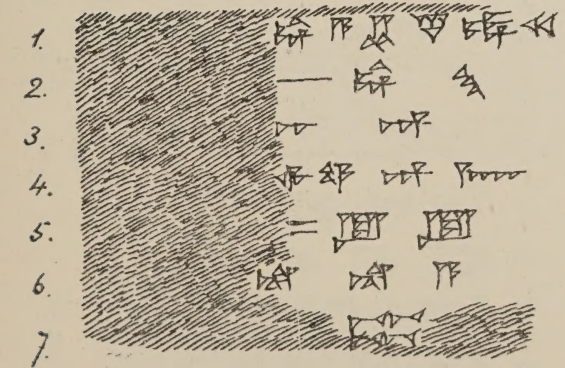
About 8 lines lost



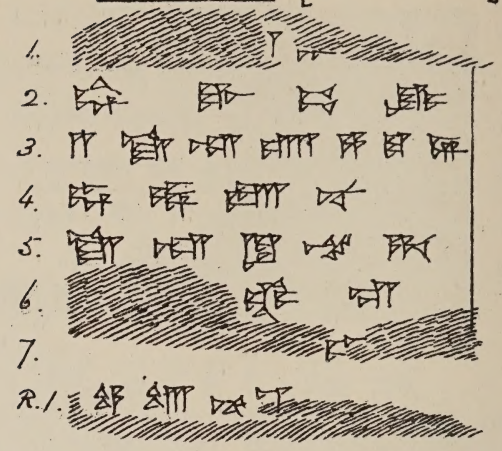
No. 861. [K. 11898.]



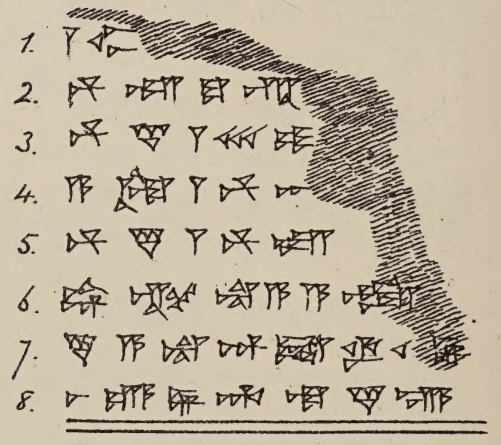
No. 862. [K. 11866.]



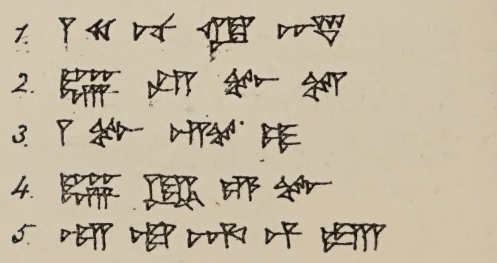
No. 863. [K. 13199.]



No. 864. [K. 11865.]



No. 865. [K. 1260.]



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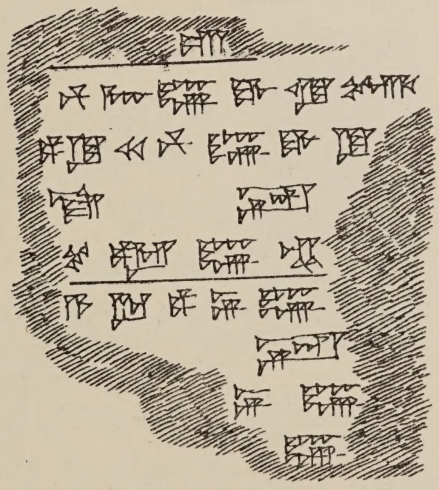
No. 866. [81-2-4, 490.]



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No. 867. [K. 1531.]

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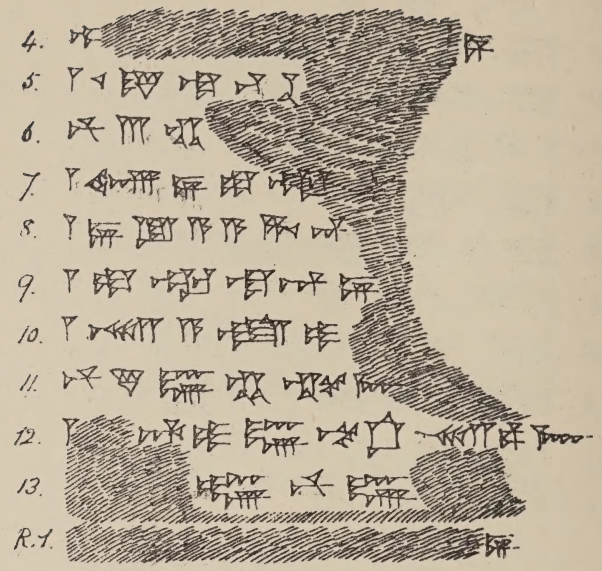
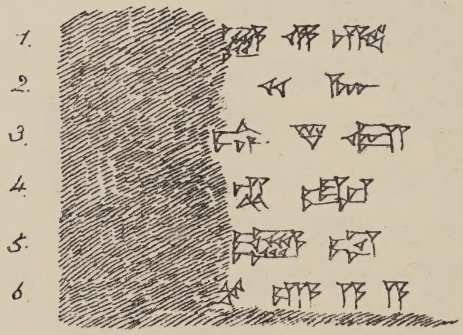
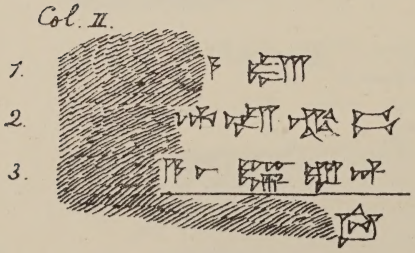


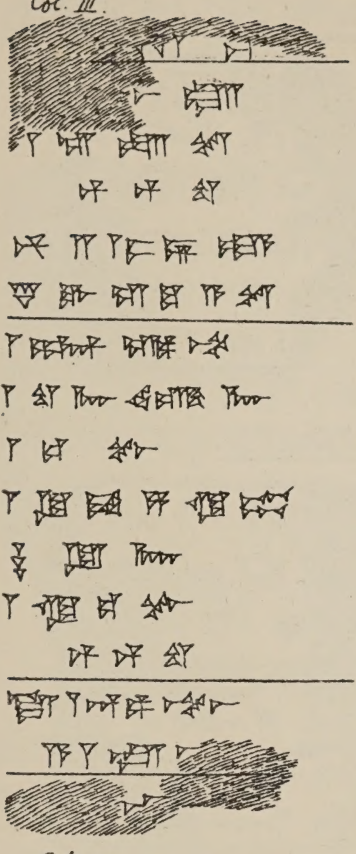
No. 868. [K. 1965.]



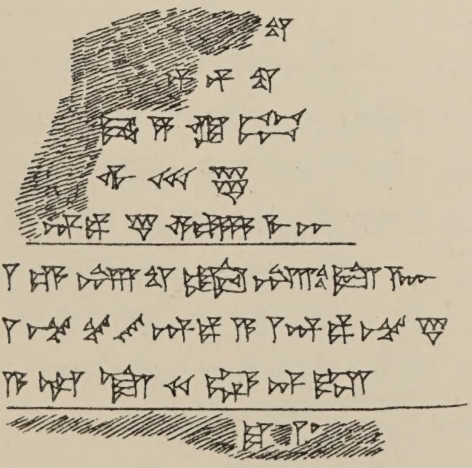
No. 869. [K. 4753.]



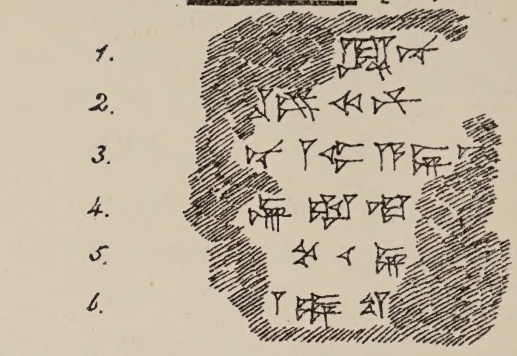
Col. III.



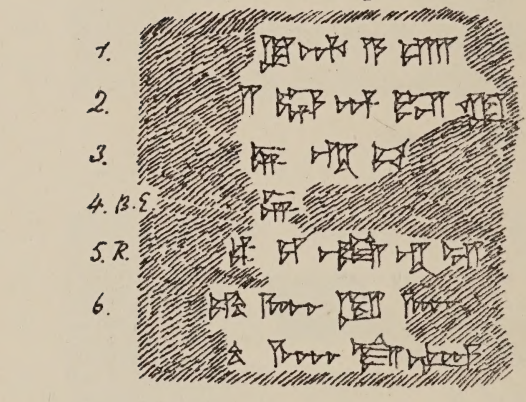
Col. IV.



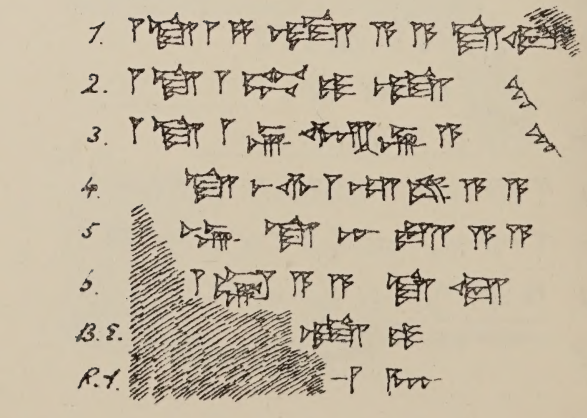
No. 870. [K. 7292.]

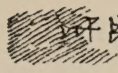


No. 871. [K. 13189.]

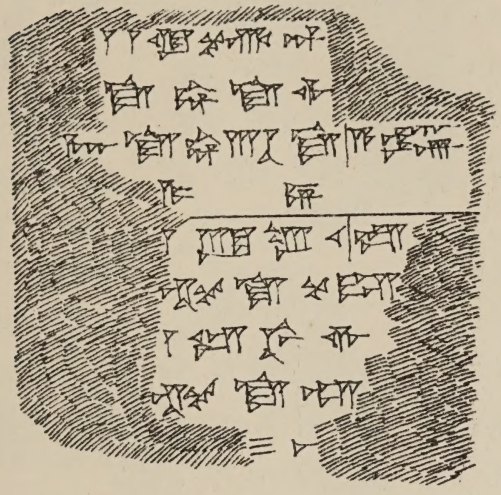


No. 872. [K. 1484.]

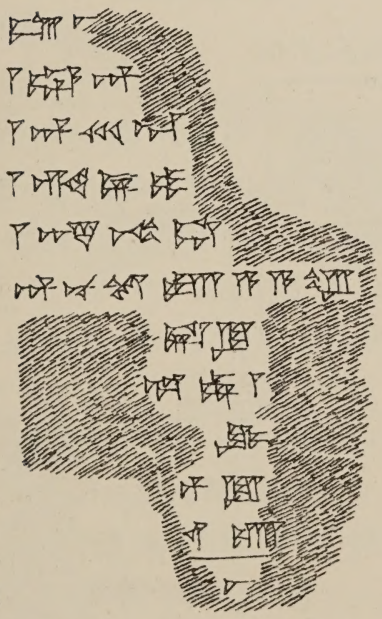


2. 

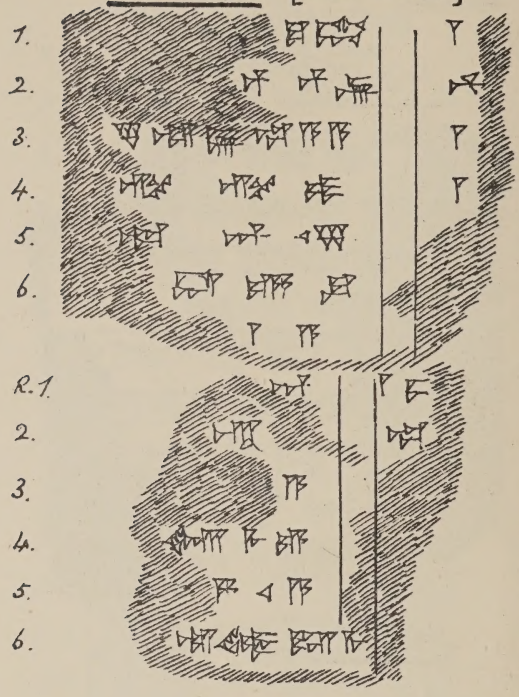
No. 873. [K. 1484.]



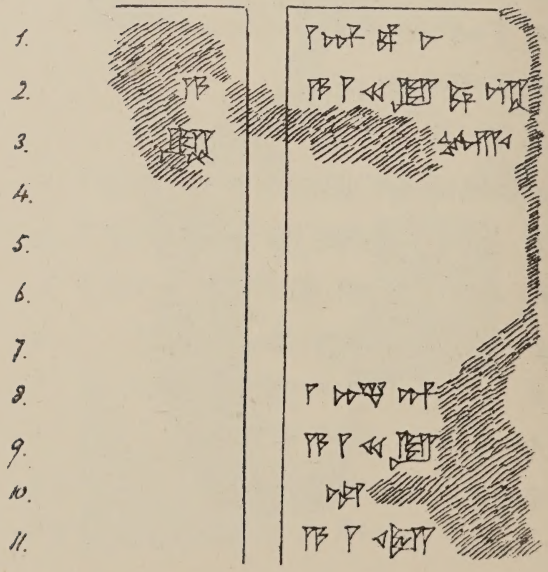
No. 874. [K. 4722.]



No. 875. [Sm. 1198.]



No. 876. [K. 11378.]



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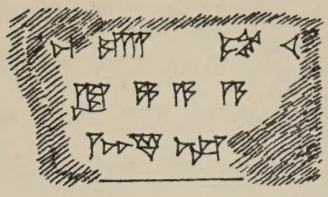

No. 877. [K. 12986.]

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No. 877. [K. 1572.]

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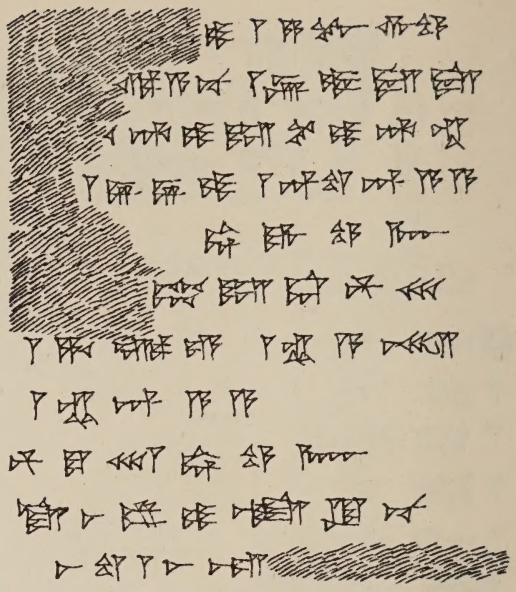
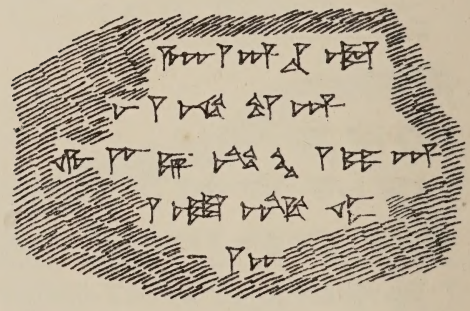
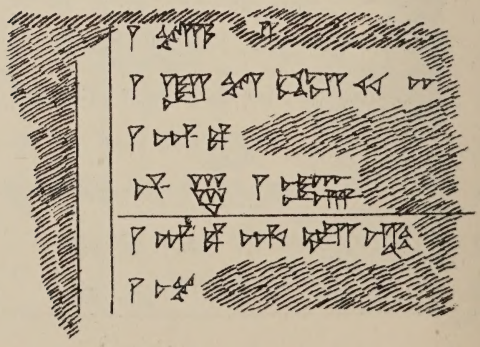
B.E.



No. 878. [83-1-18, 763.]



No. 879. [H. 1297.]



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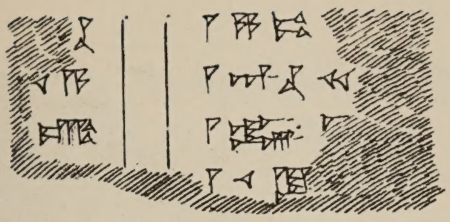

No. 880. [K. 8709.]

Col. I.

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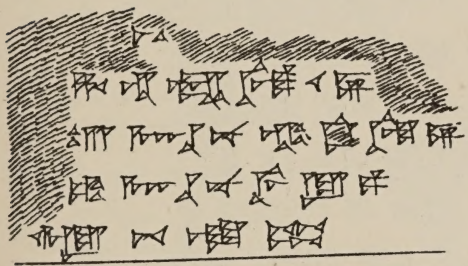

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Col. II

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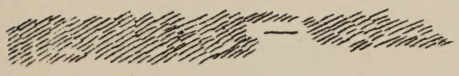
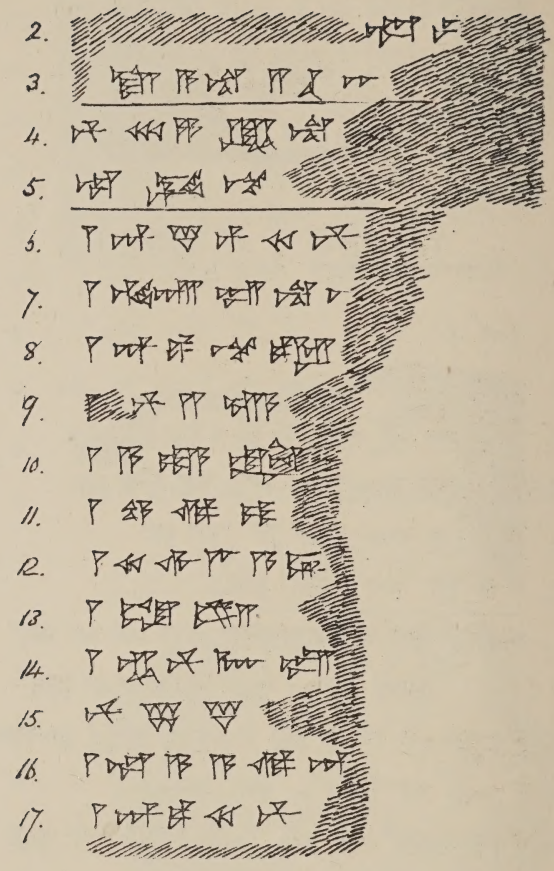
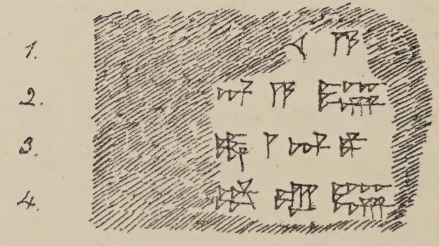
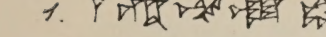
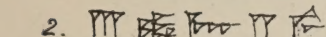
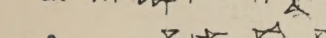
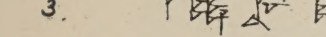
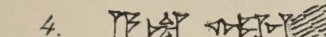
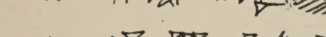
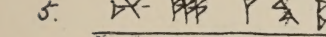
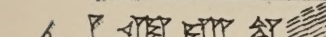
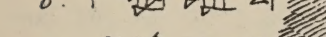
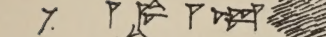
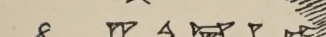
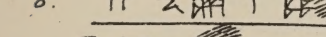


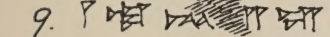
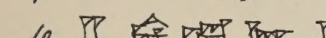


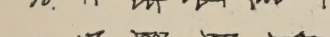
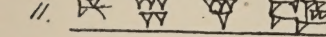
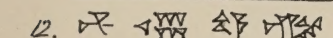
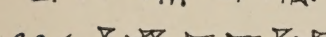
NO. 881. [K. 5499.]



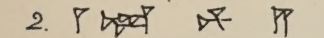
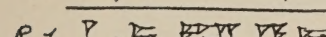
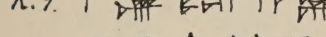
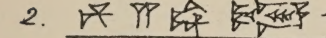
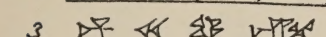
No. 882. [K. 947.]

1. 
2. 
3. 
4. 
5. 
6. 
7. 
8. 
9. 
10. 
11. 
12. 

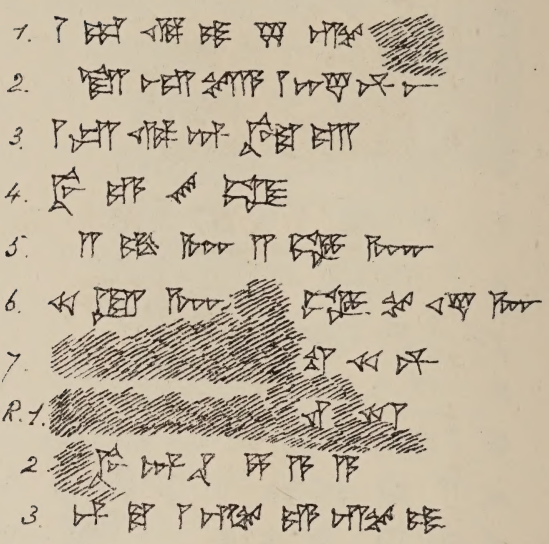
B.E.1. 
2. 

R.1. 
2. 
3. 
4. 

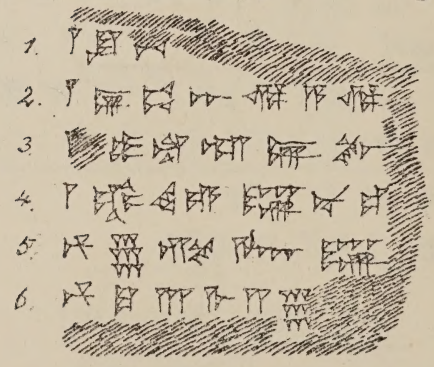
No. 883. [K. 2125.]

1. 
2. 
3. 
4. 
5. 

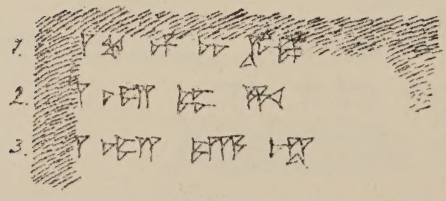
No. 884. [K. 929.]

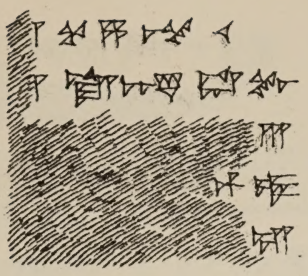


No. 885. [K. 5655.]

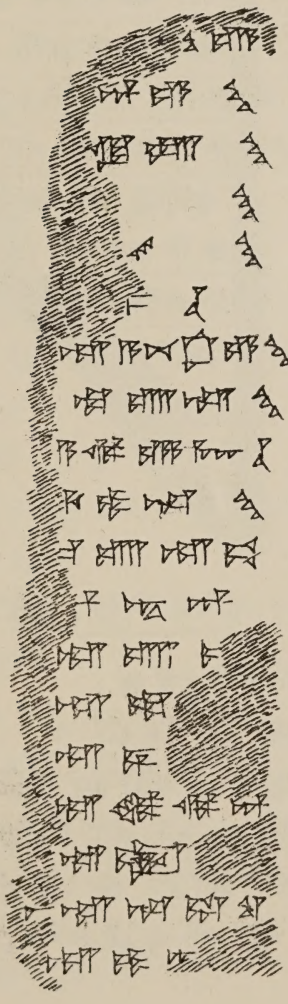


No. 886. [K. 1108.]



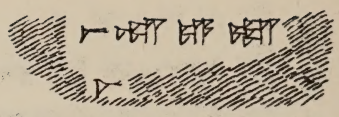


No. 887. [K.5574.]



R.1.

2.



No. 888. [81-7-27, 117.]

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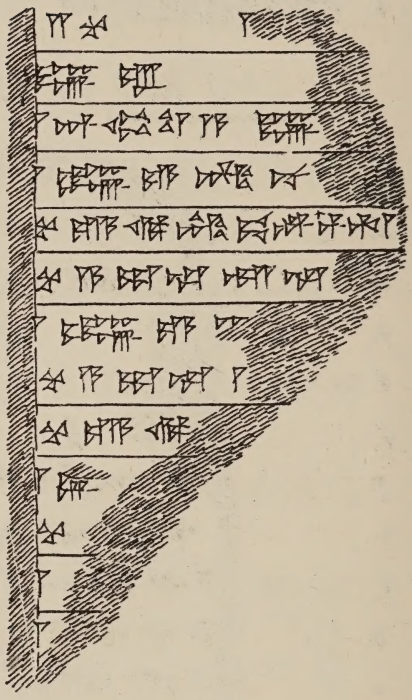

, +or

No. 889. [K. 6.]

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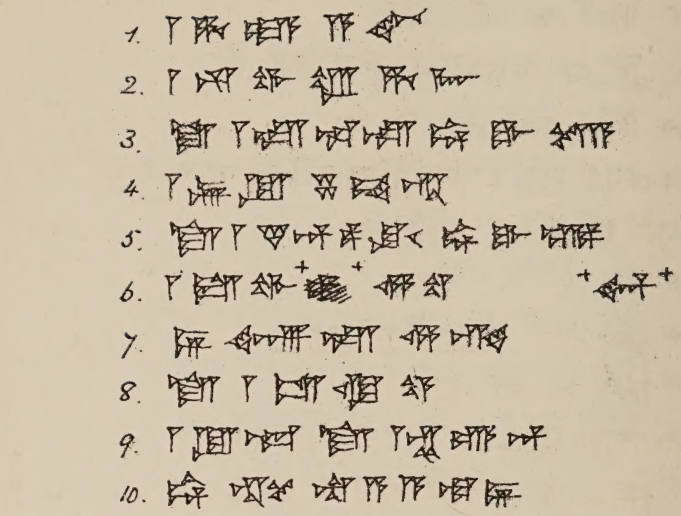
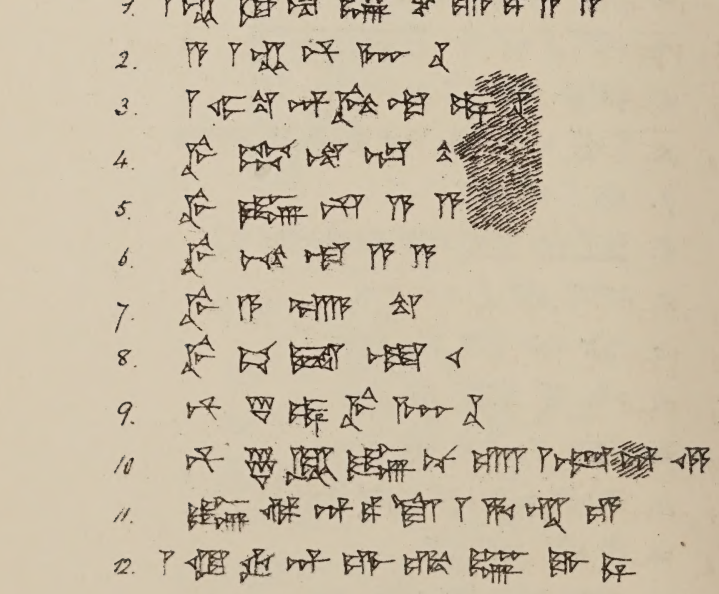
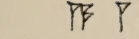
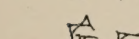
No. 890. [K. 7.]

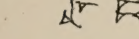


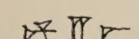
No. 891. [K. 93.]

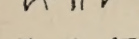


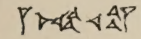
13. 

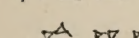
14. 

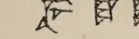
15. 

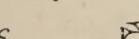
16. 

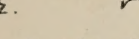
17. 

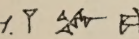
B.E. 

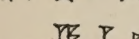
R. 1. 

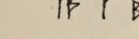
2. 

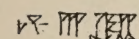
3. 

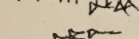
4. 

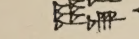
5. 

6. 

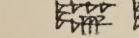
7. 

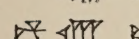
8. 

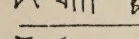
9. 

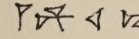
10. 

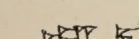
No. 892. [K. 173.]

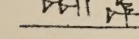
1. 

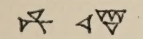
2. 

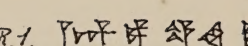
3. 

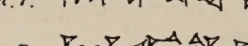
4. 

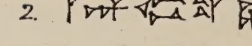
5. 

6. 

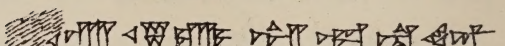
7. 

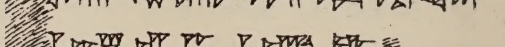
R.1. 

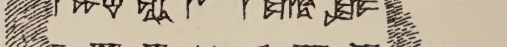
2. 

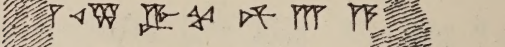
3. 

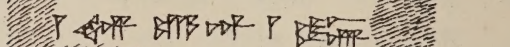
No. 893. [K. 751.]

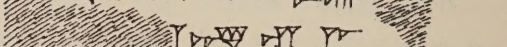
1. 

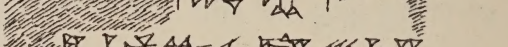
2. 

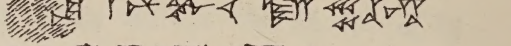
3. 

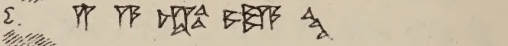
4. 

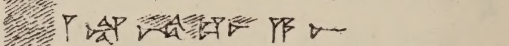
5. 

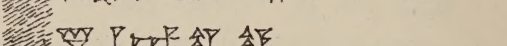
B.E. 

R.H.E. 

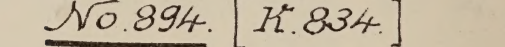
R.1. 

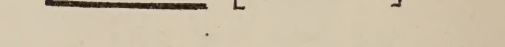
2. 

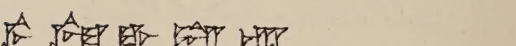
3. 

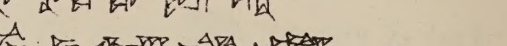
4. 

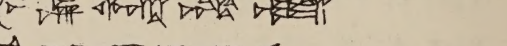
No. 894. [K. 834.]

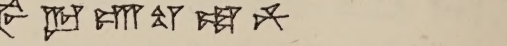
1. 

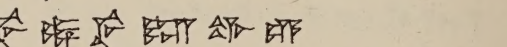
2. 

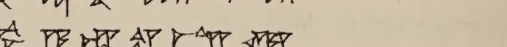
3. 

4. 

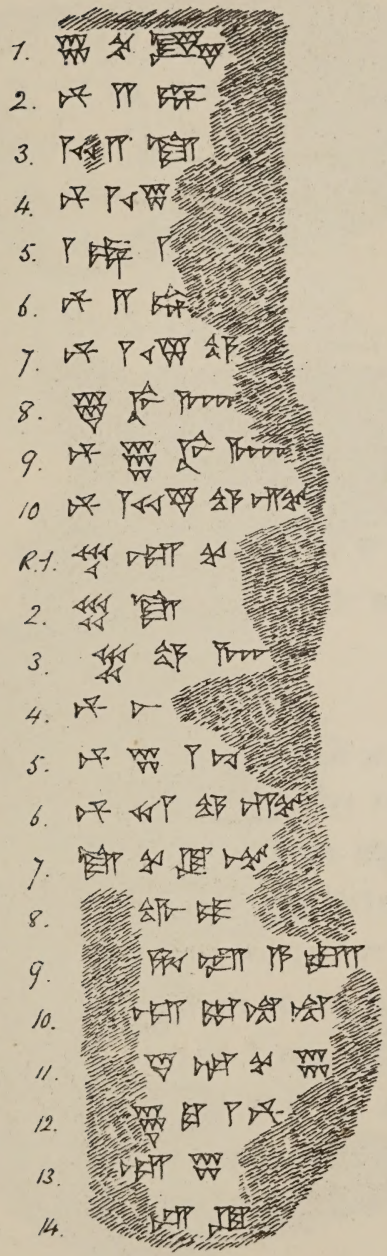
5. 

6. 

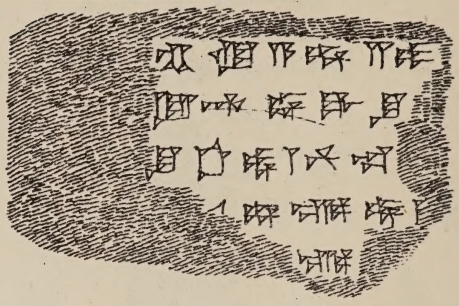
7. 

8. 

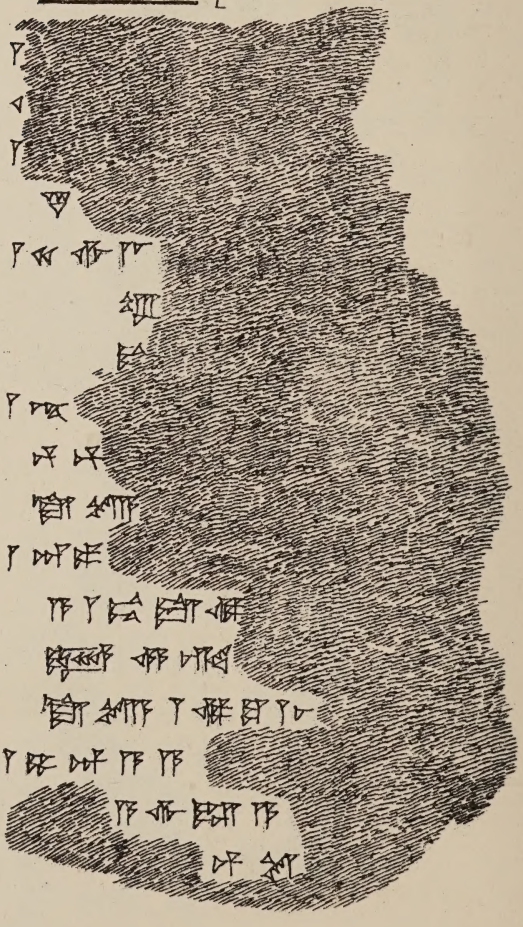
No. 895. [K. 4791.]



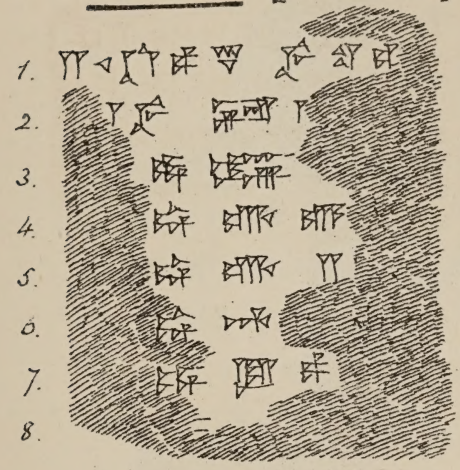
No. 896. [K. 5800.]



No. 897. [K. 7253.]

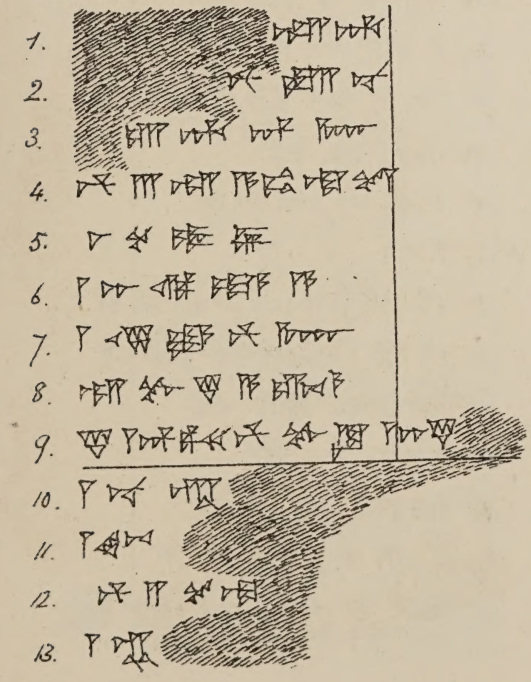


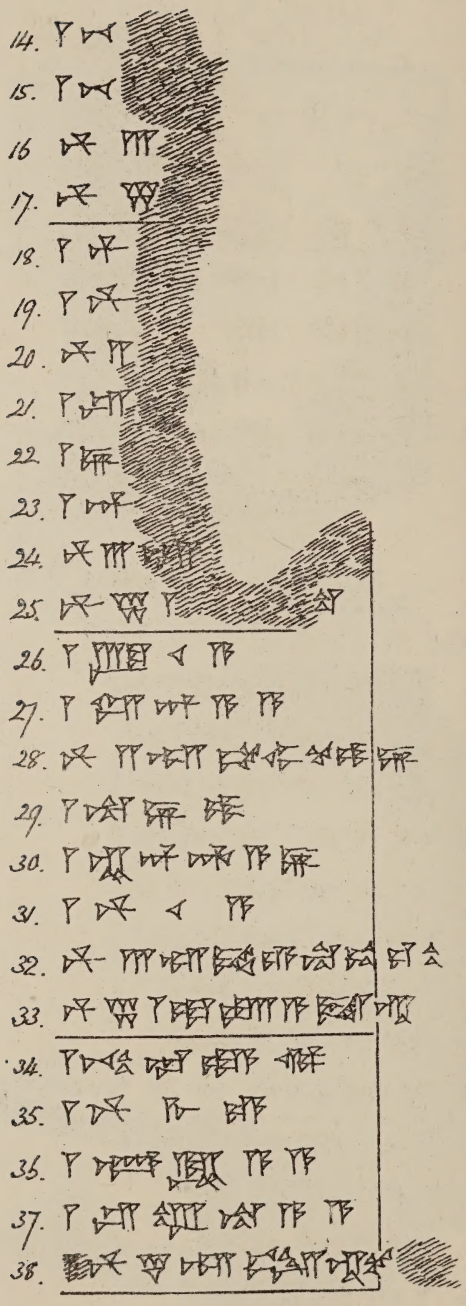
No. 898. [K. 8822.]



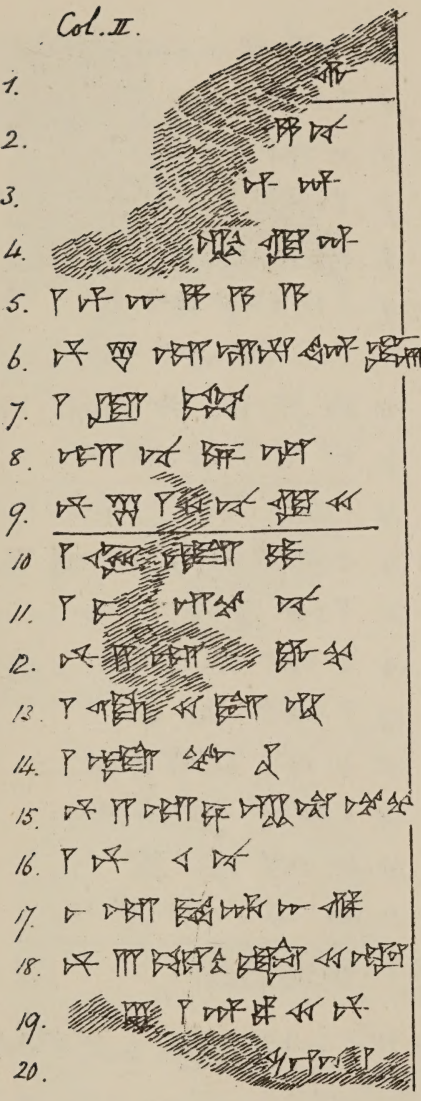
No. 899. [K. 4686.]

Col. I.

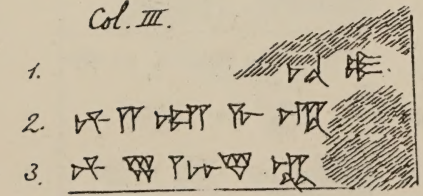


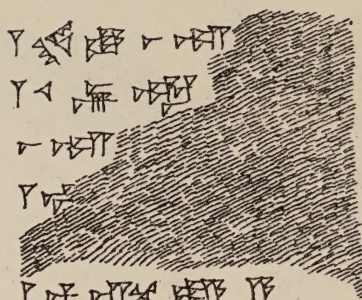


Col. II.



Col. III.



4. 
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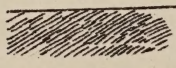
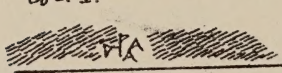
B. E. 

No. 900. [K. 13209.]

Col. I.

1. 
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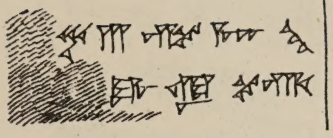

Col. II.

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No. 901. [K. 13218.]

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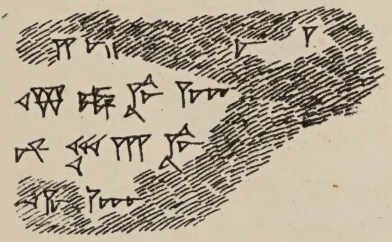

No. 902. [K. 13467.]

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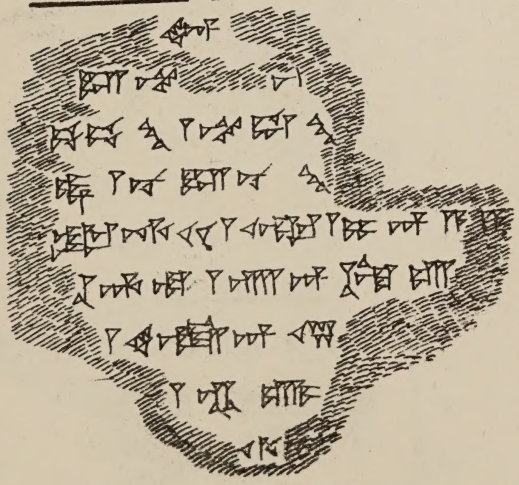
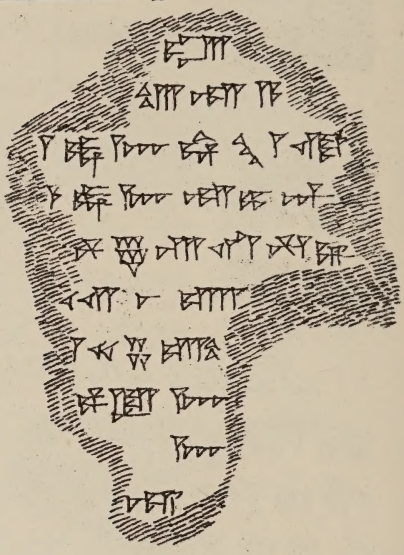
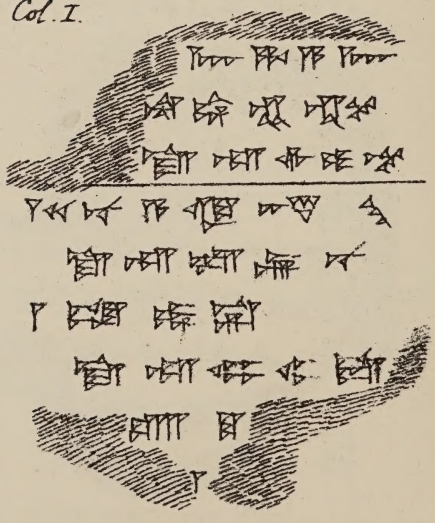


No. 903. [K. 13752.]

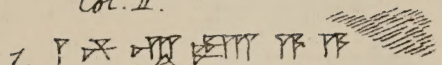
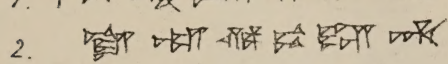


No. 904. [Sm. 762.]

Col. I.



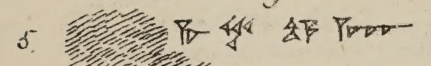
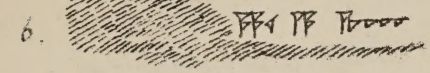
Col. II.

1. 
2. 

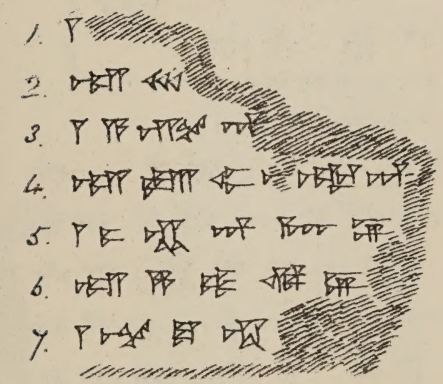
Blank of several lines.

Col. III.

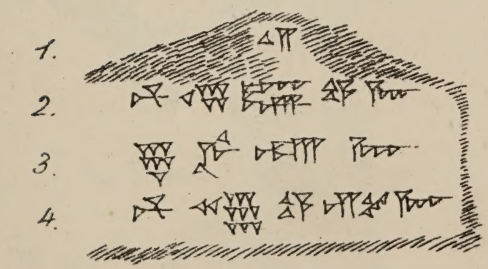
Four almost illegible lines.

5. 
6. 

Col. IV.

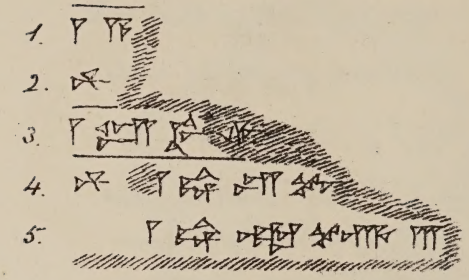
1. 

No. 905. [Sm. 1767.]

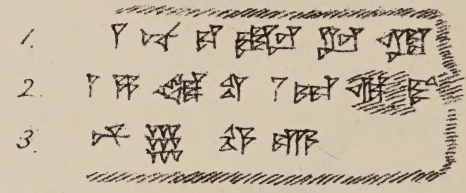
1. 

No. 906. [Sm. 1921.]

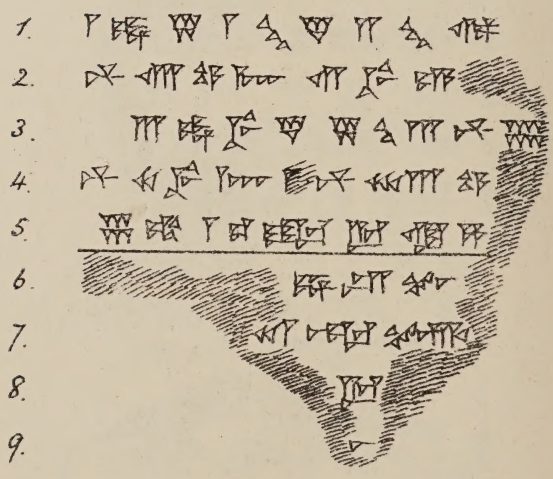
Col. I.



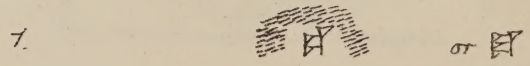
Col. II.

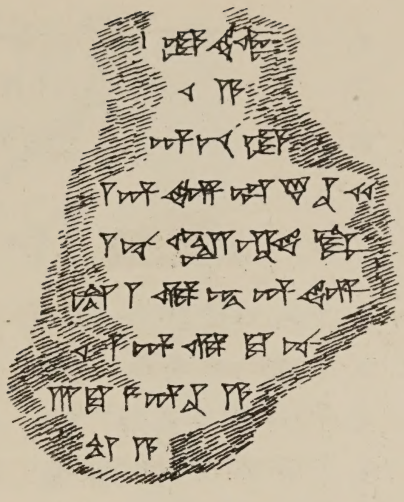


Rev. Col. IV. (?)

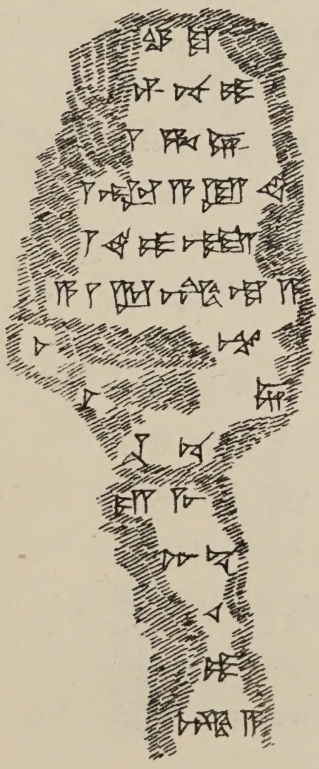


No. 907. [Sm. 2113.]





No. 908. [D.T. 214.]



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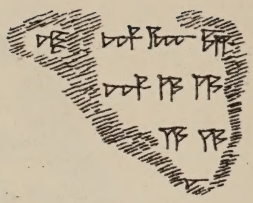

No. 909. [Rm. 51.]

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R.1.
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No. 910. [K 11239.]

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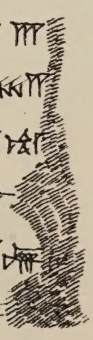
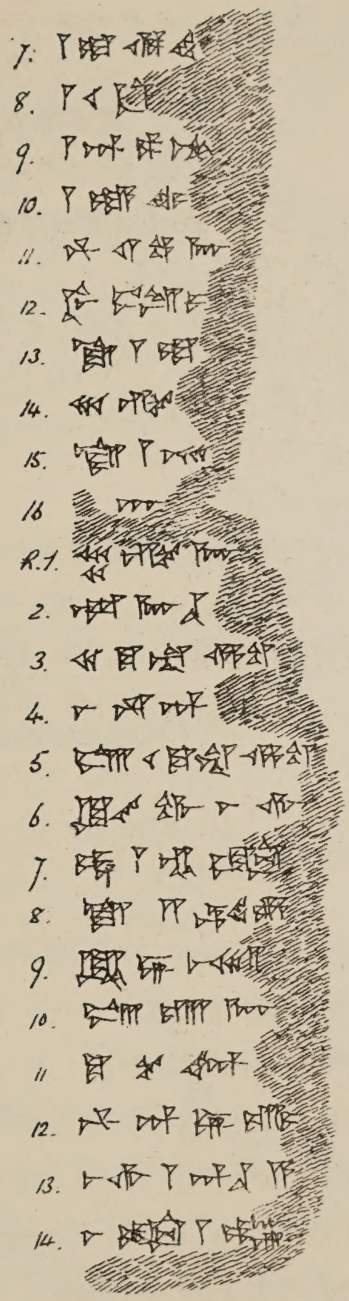
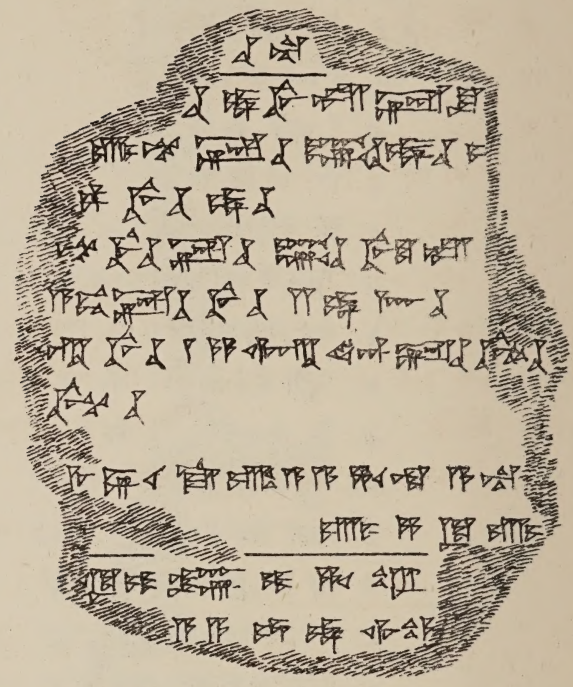


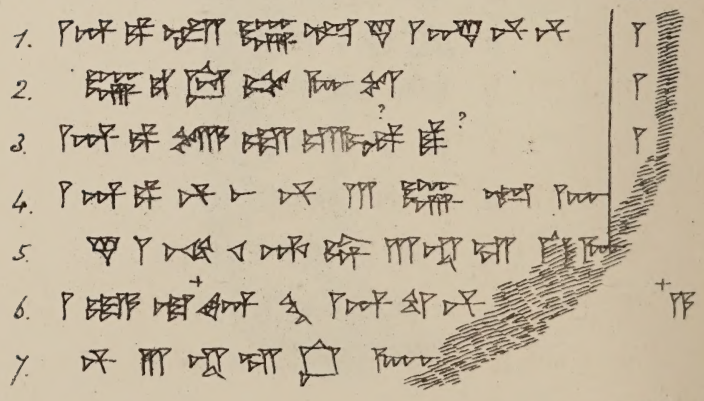


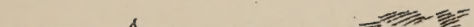
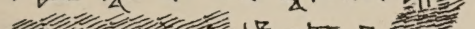
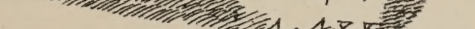
No. 911. [Rm. II. 247.]



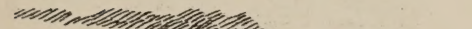
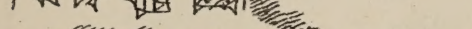
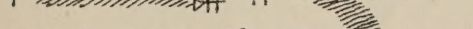
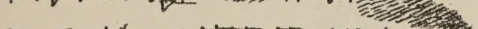
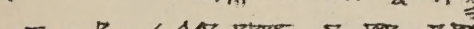
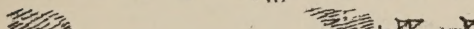
No. 912. [83-1-18, 471.]

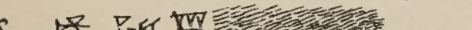
Col. I Col. II.



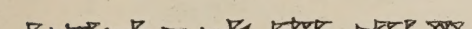
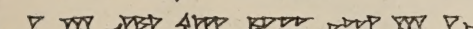
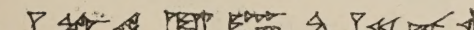
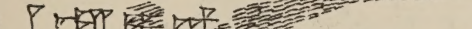
8. 
9. 
10. 

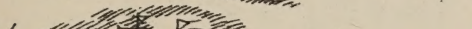
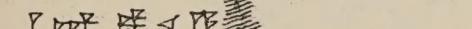
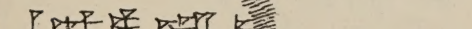
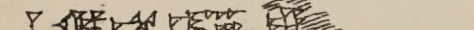
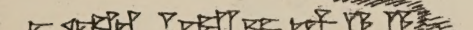
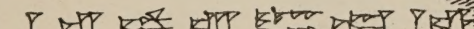
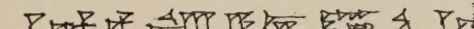
R.

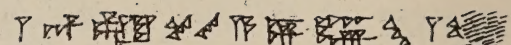
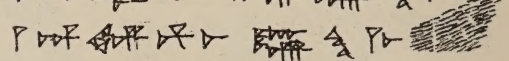
1. 
2. 
3. 
4. 
5. 
6. 

R.E. 

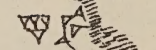
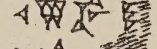
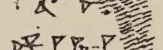
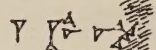
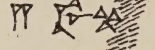
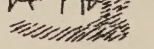
No. 913. [81-7-27, 90.]

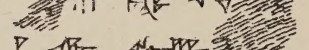
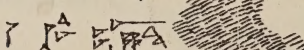
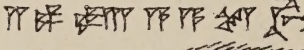
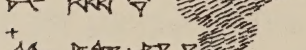
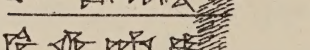
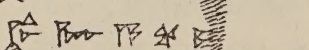
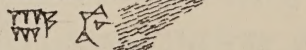
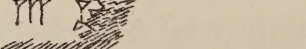
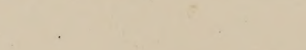
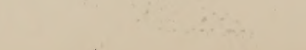
1. 
2. 
3. 
4. 

R. 1. 
2. 
3. 
4. 
5. 
6. 
7. 

8. 
9. 

NO. 914. [K. 10447.]

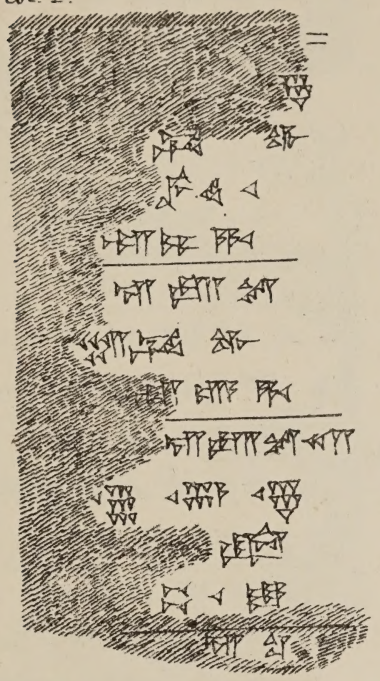
1.
2. 
3. 
4. 
5. 
6. 
7. 
8.

R.1.
2. 
3. 
4. 
5. 
6. 
7. 
8. 
9. 
10. 
11. 

?

No. 915. [Sm. 1001.]

Col. I.



Col. II.

10.
11.
12.
13.

Col. III.

1.
2.
3.
4.
5.
6.
7.
8.
9.
10.
11.

No. 916. [K 13040.]

1.
2.
3.
4.
5.
6.
7

8.

9.

Rev.

1.

2.

3.

4.

5.

6. trace.

7. trace.

No. 917. [K. 9772.]

Col. I.

1. trace.

2.

3.

4.

Col. II.

traces of six(?) lines.

7.

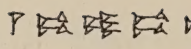
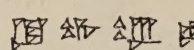
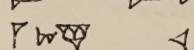
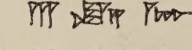
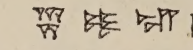
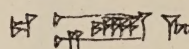
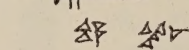
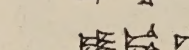
8.

9.

10.

11.

12.

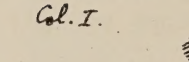
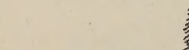
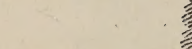
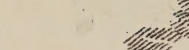
13. 
14. 
15. 
16. 
17. 
18. 
19. 
20. 

Col. III.

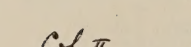
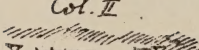
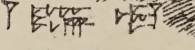
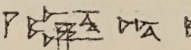
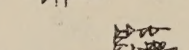
Four or five illegible lines.

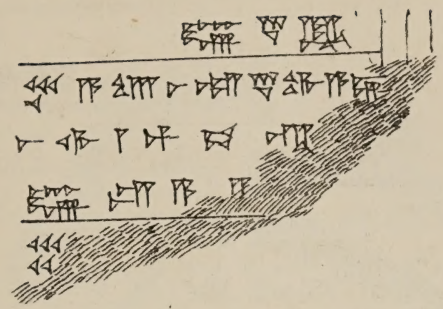
No. 918. [80-7-19, 136.]

Col. I.

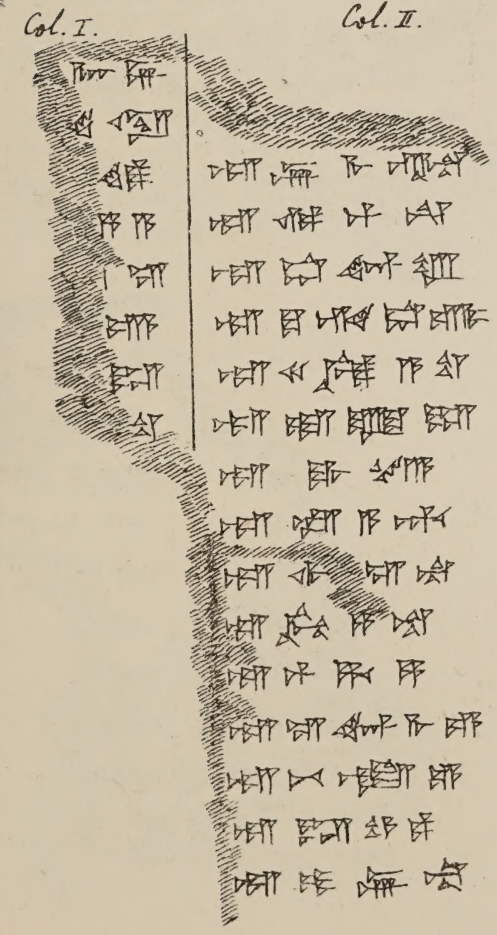
1. 
2.
3.
4. 
5. 
6. 
7.

Col. II

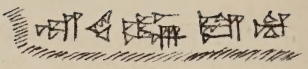
1. 
2. 
3. 
4. 
5. 



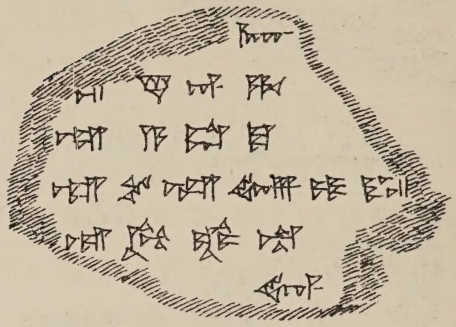
No. 919. [K. 1521.]



18.

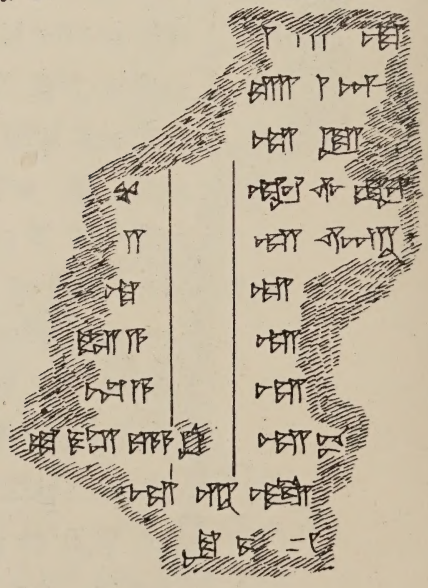


No. 920. [81-7-27, 263.]



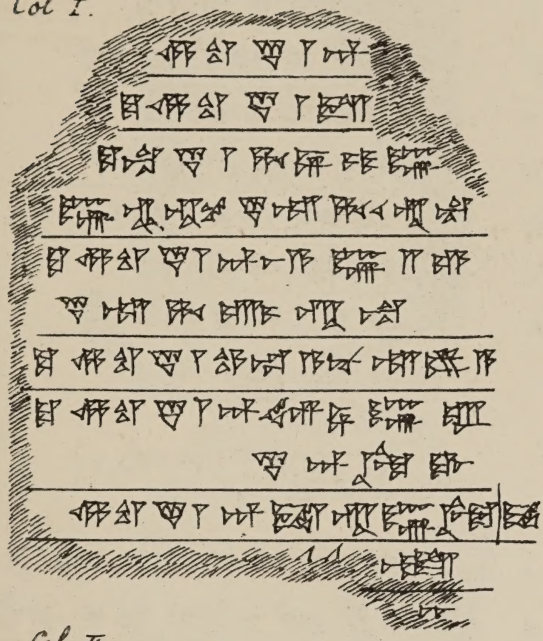
No. 921. [83-1-18, 185.]

Col. I. Col. II.



No. 922. [K. 9669.]

Col I.



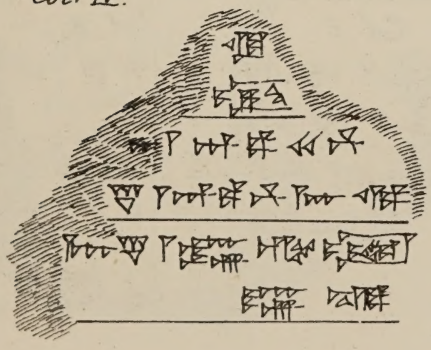
Col. II

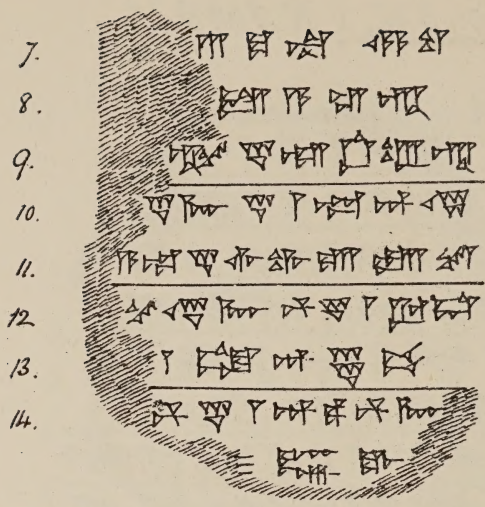
Mere traces of 5(?) lines.

Col. III.

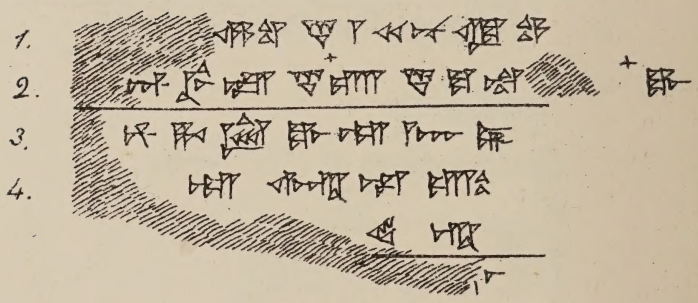
Traces of 2 lines.

Col. IV.

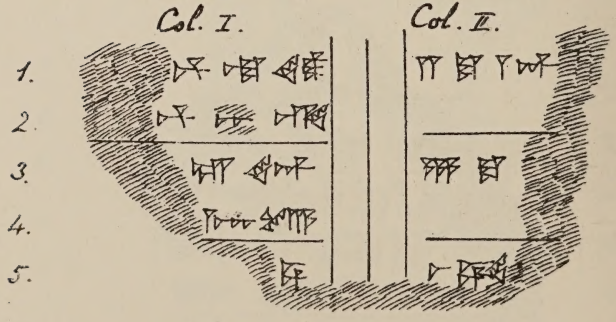




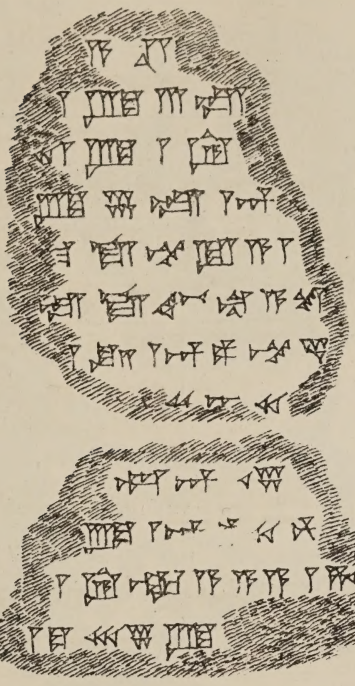
No. 923. [K. 5823.]



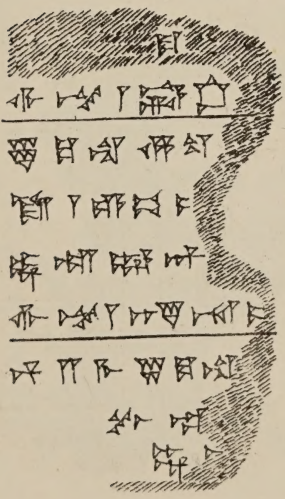
No. 924. [83-1-18, 593.]



No. 925. [D.T. 217.]

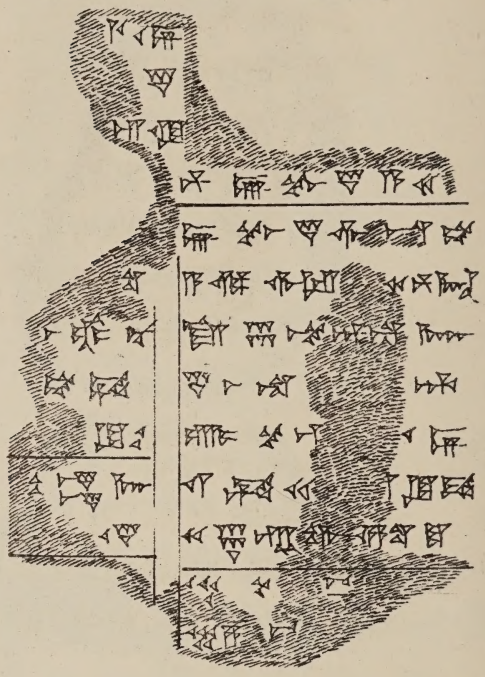


No. 926. [Sm. 736.]



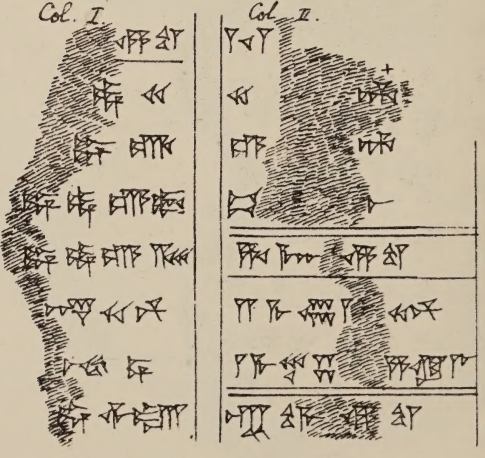
No. 927. [K. 4773.]

Col. I.(?) Col. II.(?)

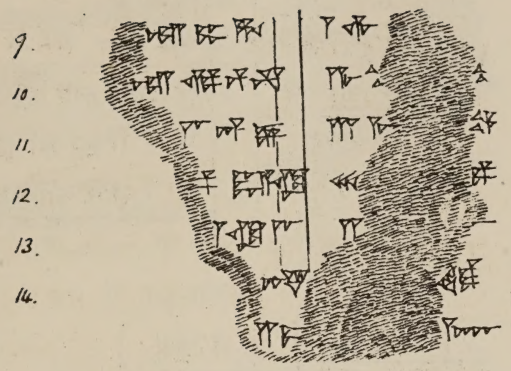


No. 928. [K. 4783.]

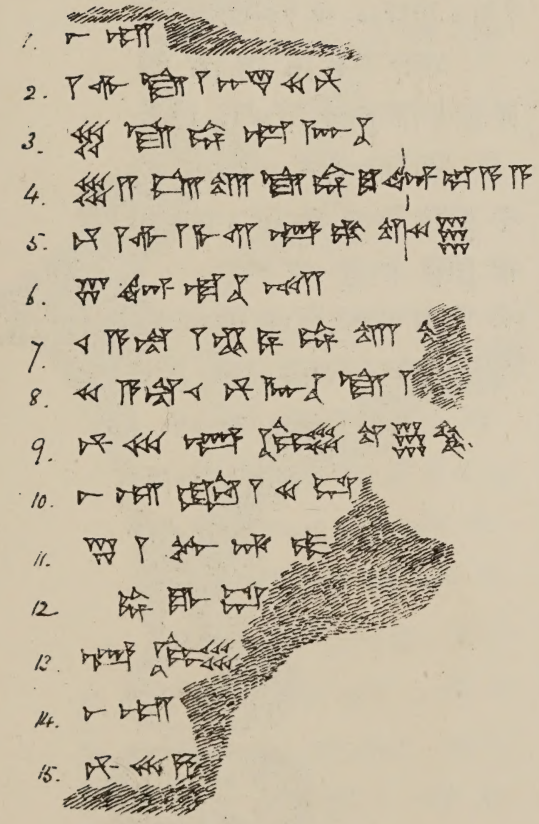
Col. I. Col. II.



Col III. begins here.

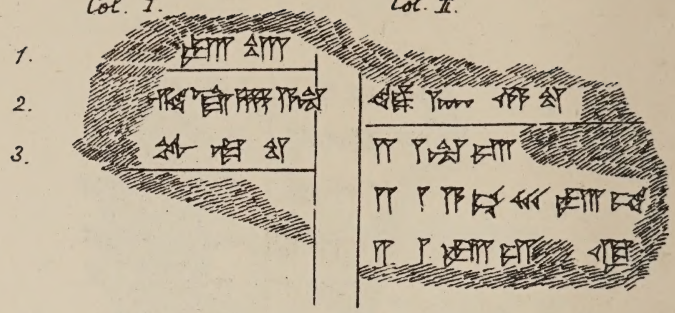


Col. III

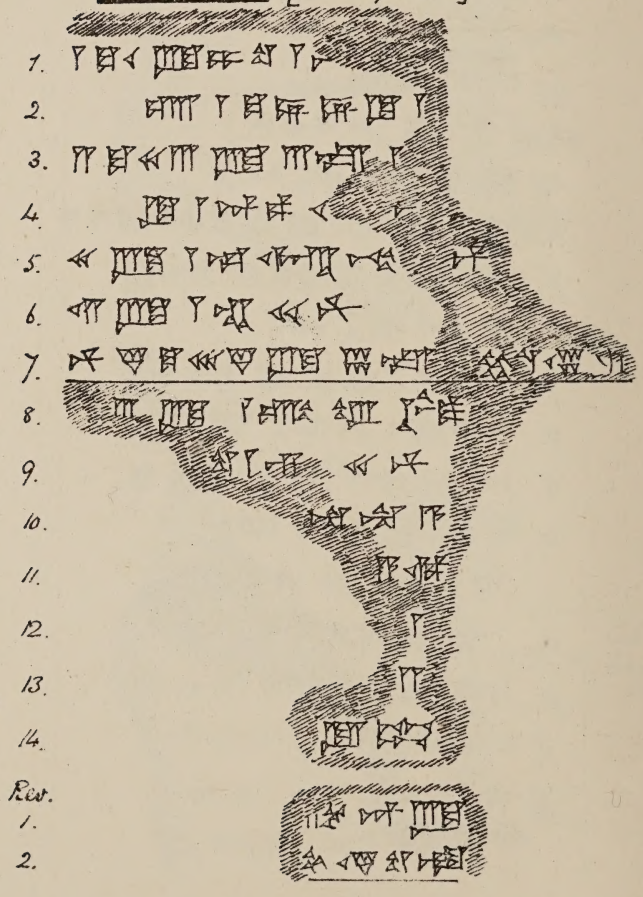


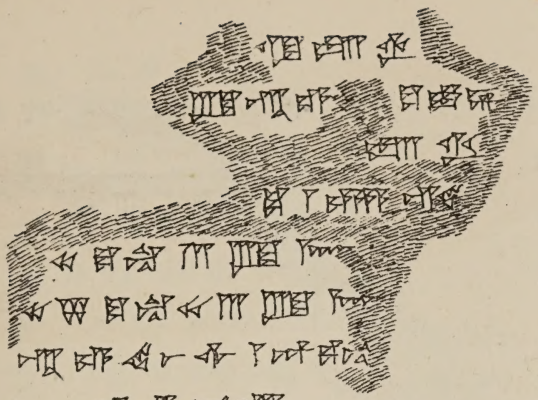
Reverse.

Col. I. Col. II.



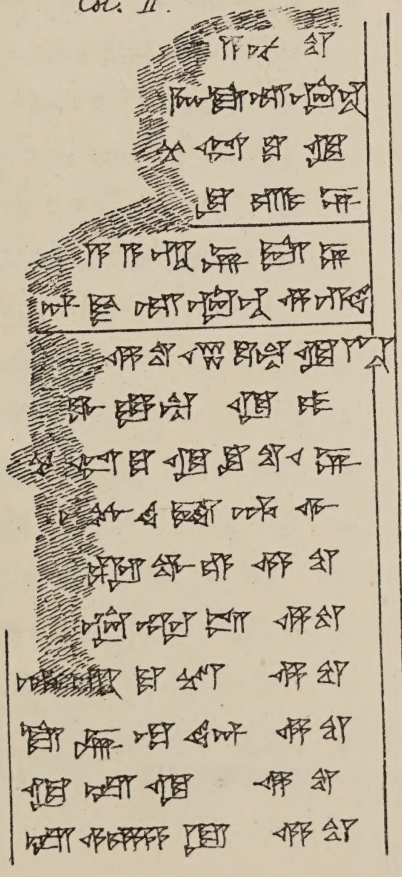
No. 929. [K. 3782.]





No. 930. [K.8427.]

Col. I. Col. II.



17.
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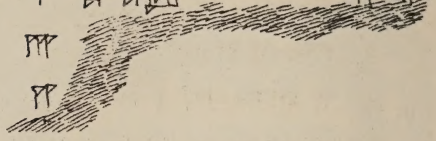

Col. III.

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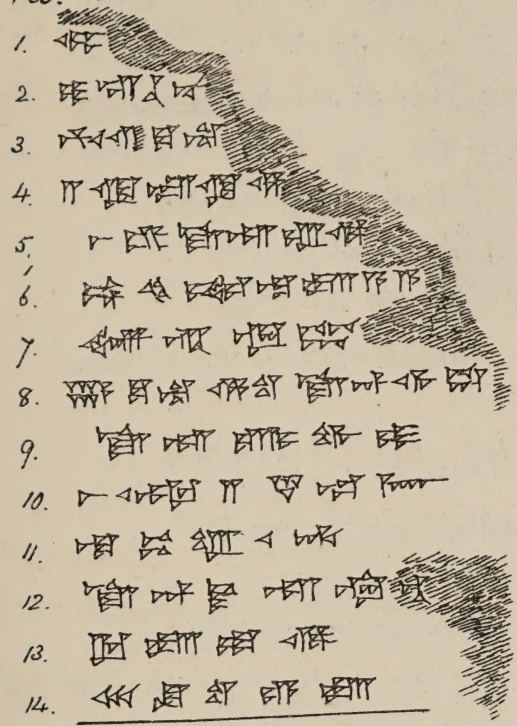
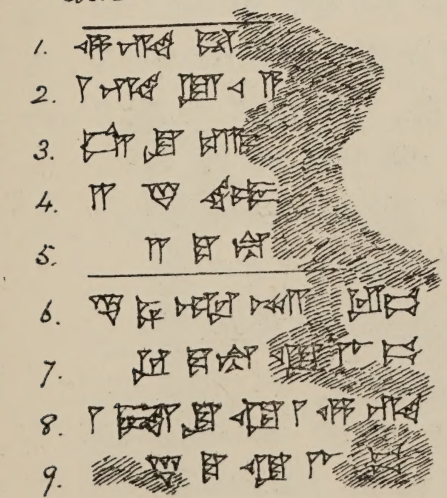
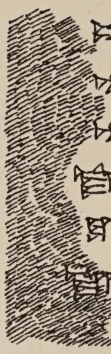
Rev. Col. III.



Col. IV.



10. 
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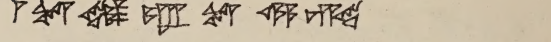
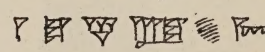
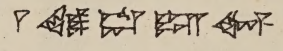
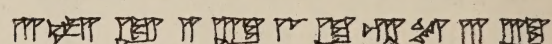
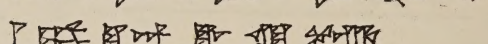
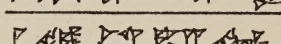
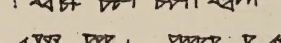
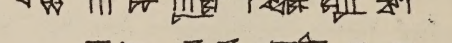
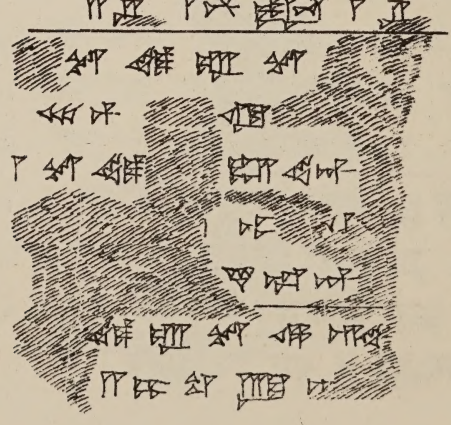
Blank space of four(?) lines.

No. 931. [K. 916.]

1. 
2. 
3. 
4. 
5. 
6. 
7. 
8. 
9. 
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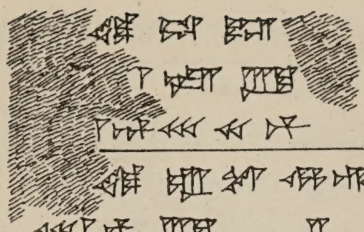
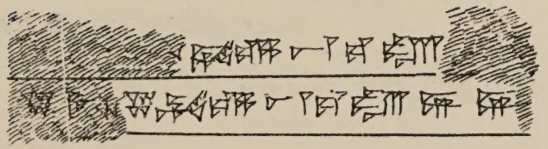


No. 932. [79-7-8, 265.]



3. [illegible]

Two blank lines.

4. [illegible]
5. [illegible]
6. [illegible]
7. [illegible]
8. [illegible]
9. [illegible]
10. [illegible]
11. [illegible]

B.E. *Traces.*

R.Y. [illegible]
2. [illegible]
3. [illegible]
4. [illegible]

No. 933. [K. 1938.]

1. [illegible]
2. [illegible]
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4. [illegible]
5. [illegible]
6. [illegible]
7. [illegible]
8. [illegible]

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No. 934. [K.2185.]

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Rev. Col. IV.

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Col. III.

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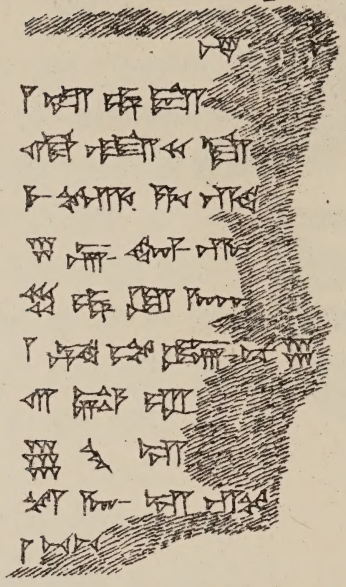
Left hand edge.

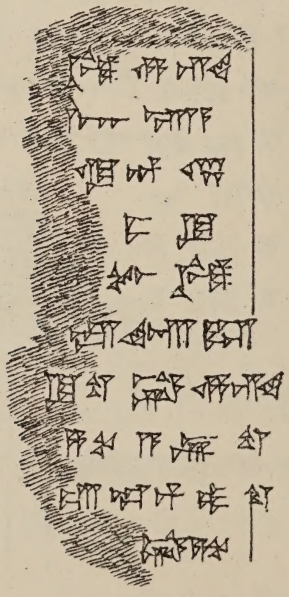
No. 935. [K. 4272.]



The reverse is not inscribed.

No. 936. [K. 4750.]

Col. I.



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Col. II.

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Col. III.

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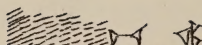
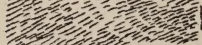
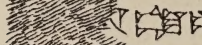
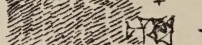
9. 

10. 

11. 

12. 

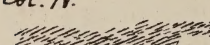
13. more trace

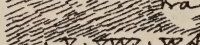
14. mere trace

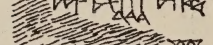
15. mere trace

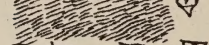
Col. IV.

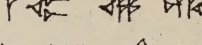
1. trace

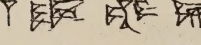
2. 

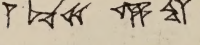
3. 

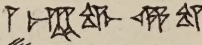
4. 

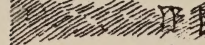
5. 

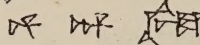
6. 

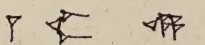
7. 

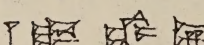
8. 

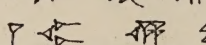
9. 

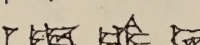
10. 

11. 

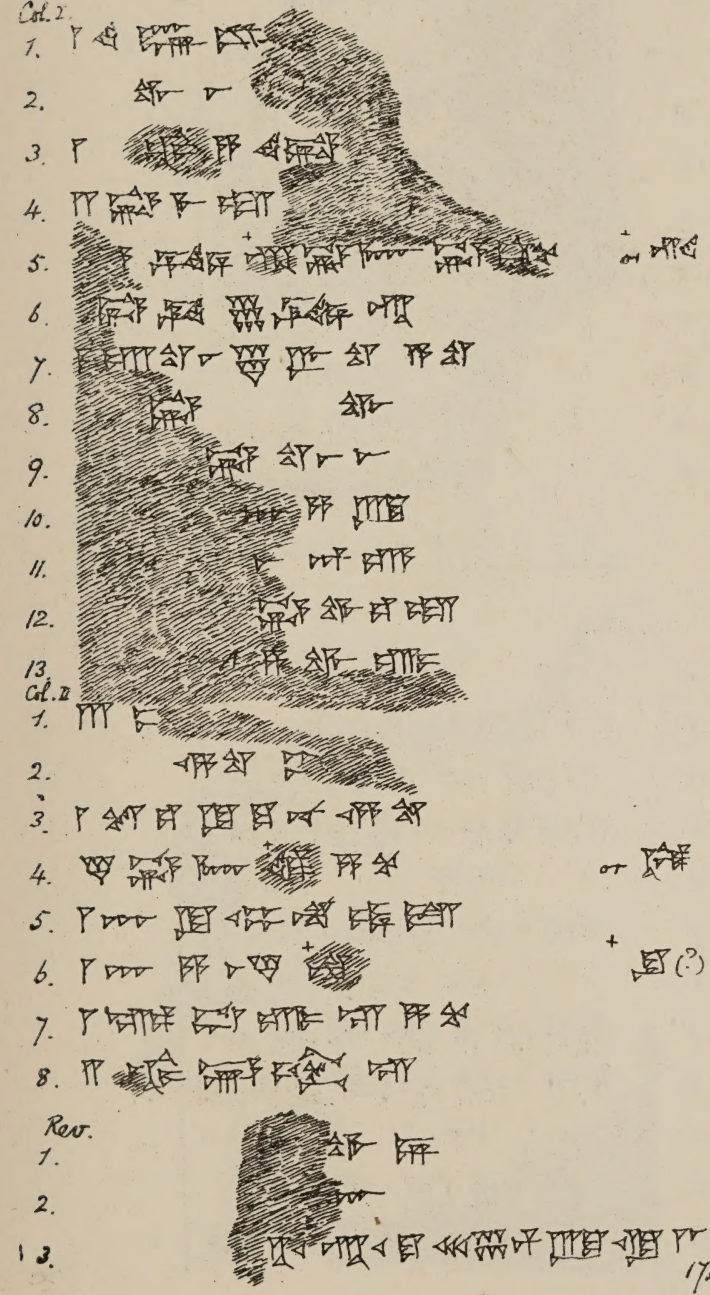
12. 

13. 

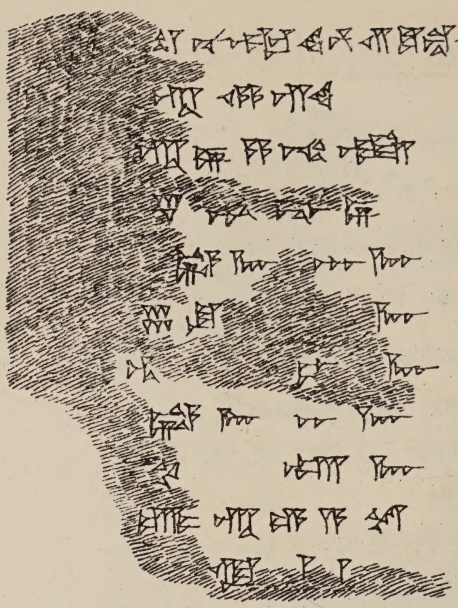
14. 

15. 

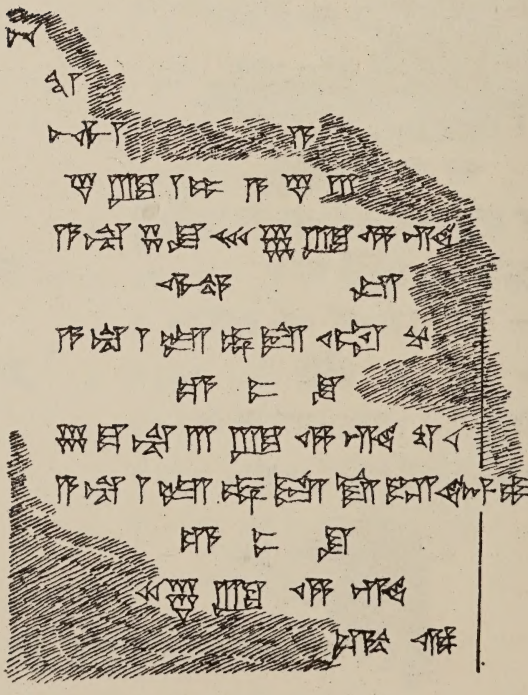
No. 937. [81-2-4, 146]



173.



No. 938. [82-3-23, 8.]



14.
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Col. II.

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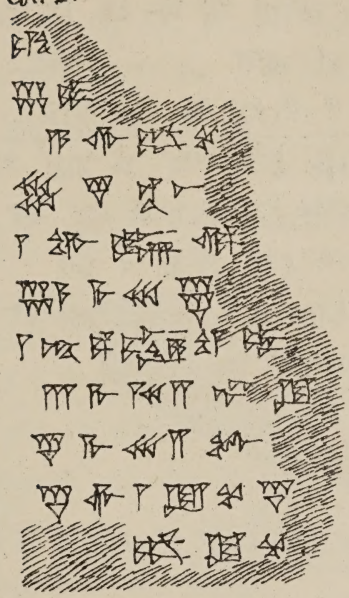

Col. III.

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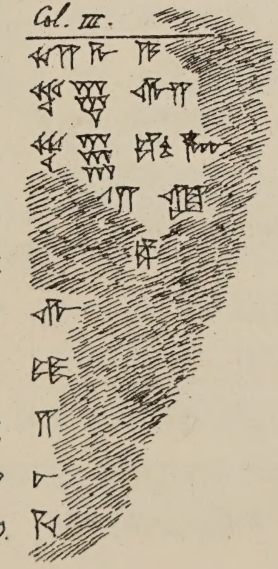
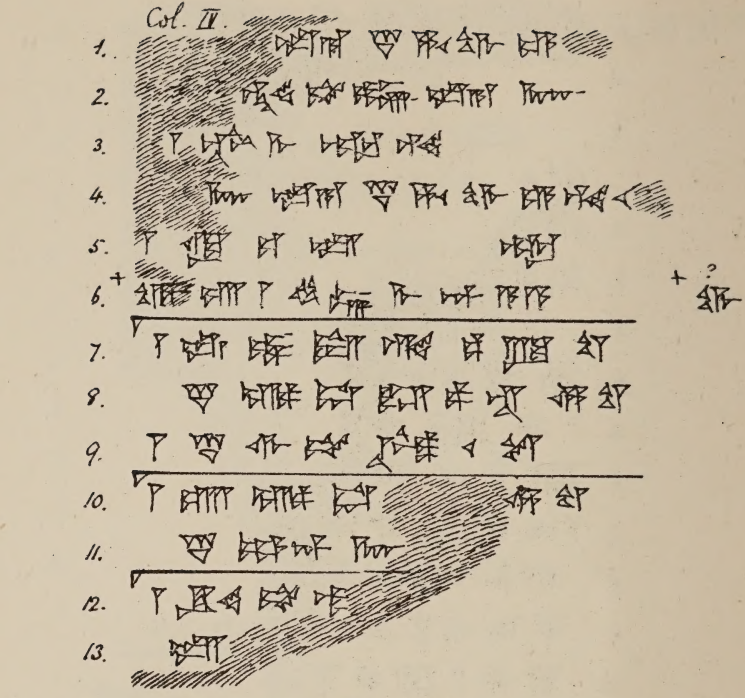
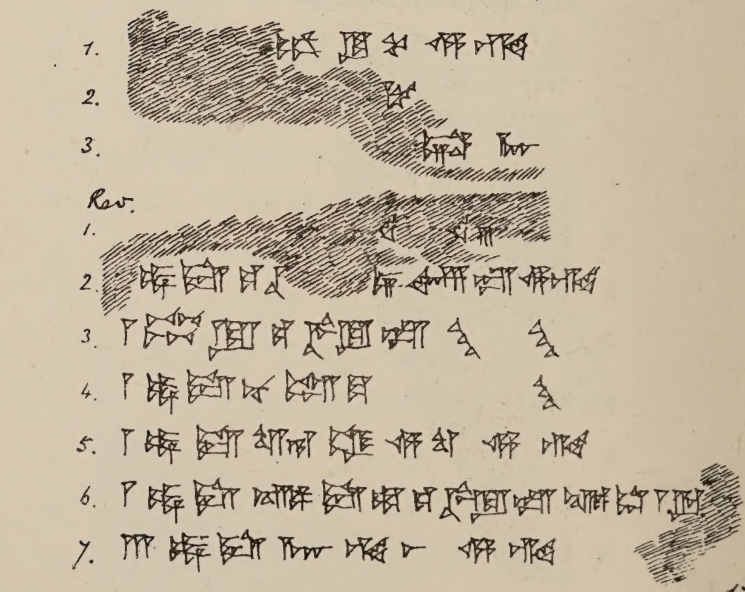
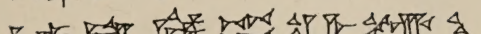
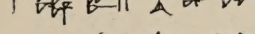


Col. II.

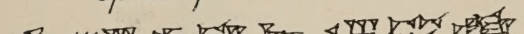
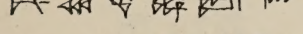


No. 939. [K. 11914.]

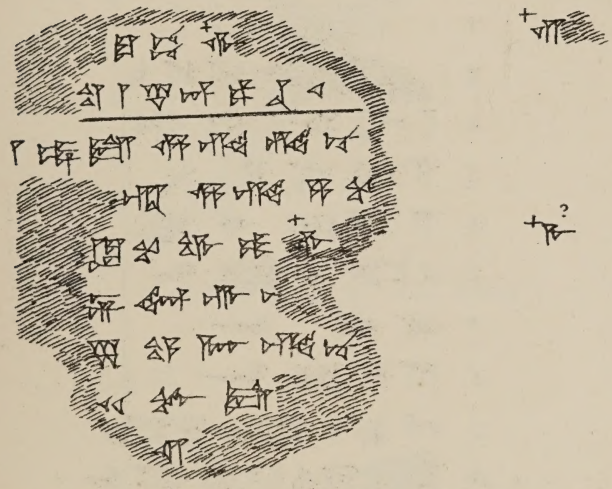


8.
9. 
10. 

Space of one blank line.

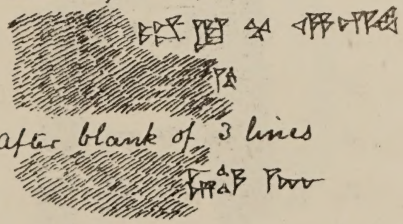
11. 
12. 

No. 940. [K. 13155.]



Rev. Uninscribed: Col. II. of obv. illegible.

* Reverse of no. 939



6.

7.

No. 941. [K. 6323.]

Col. I.

1.

2.

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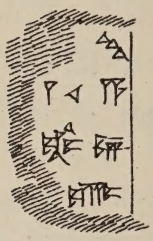
4.



Col. II.

1.

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4.

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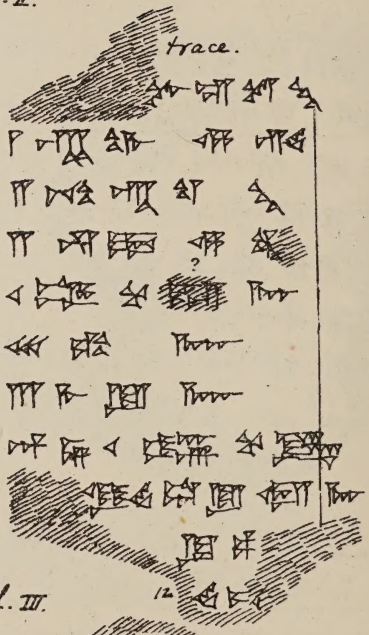
11.

12.



Col. III.

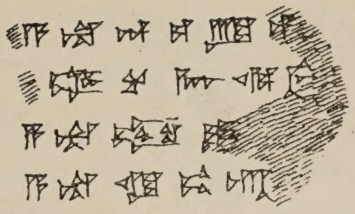
1.

2.

3.

4.

5.

6. 
7.
8.
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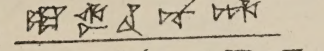
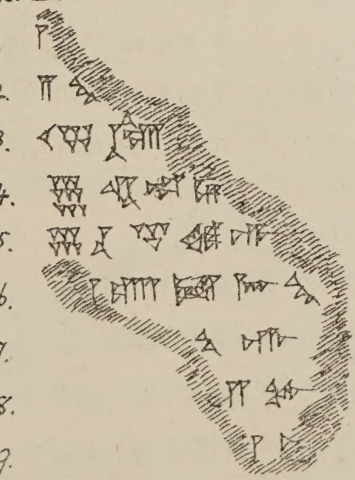
10.

11. 
12.
13.
14.
15.
16.
17.
18.

Col. IV.

Mere trace of two lines.

Col. VII.

1. 
2.
3.
4.
5.
6.
7.
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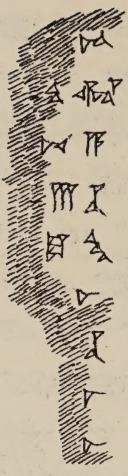
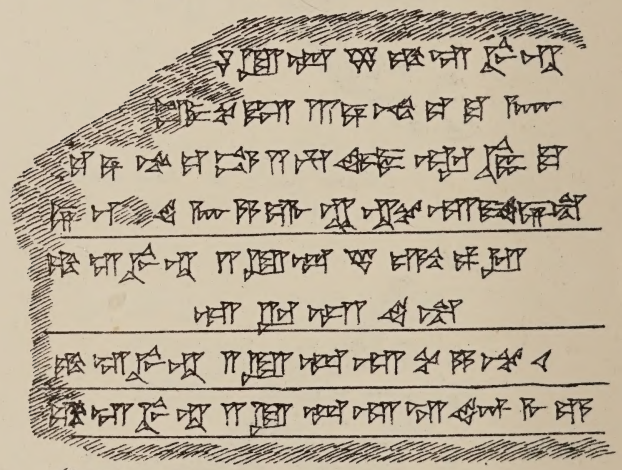
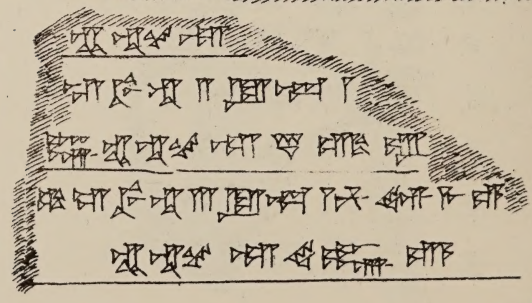
9.

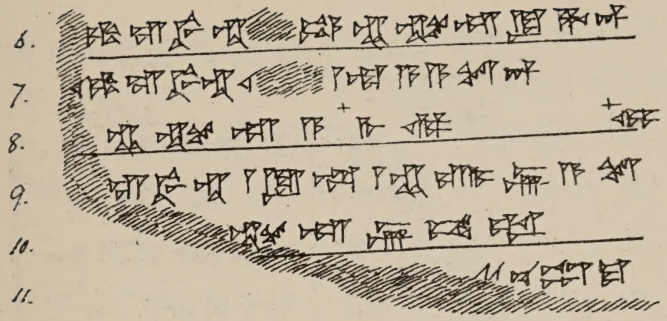
Col. VIII.



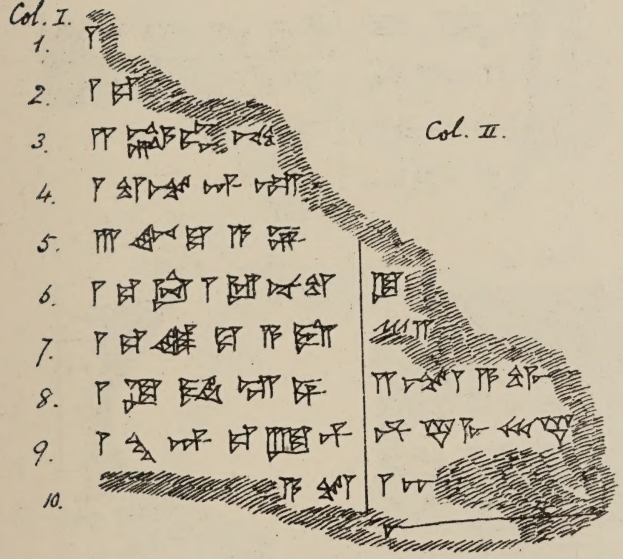
No. 942. [K. 6367.]

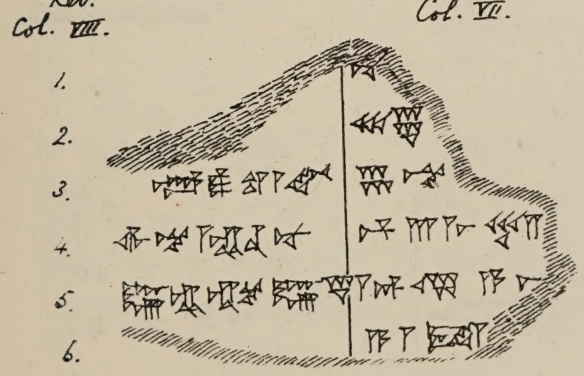




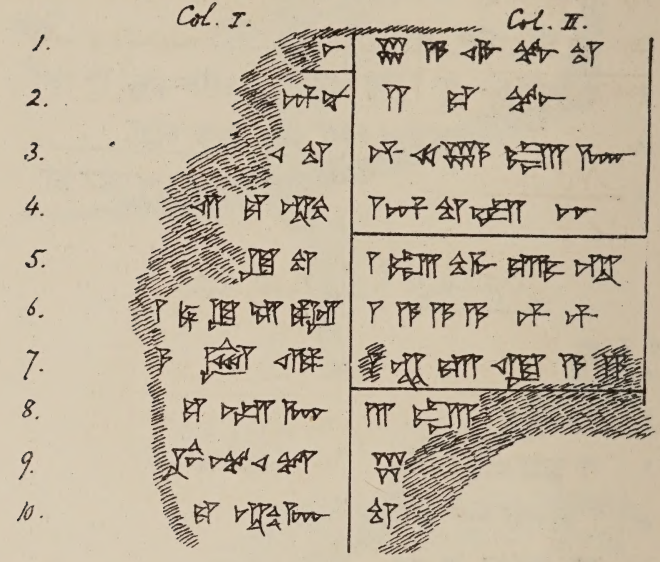


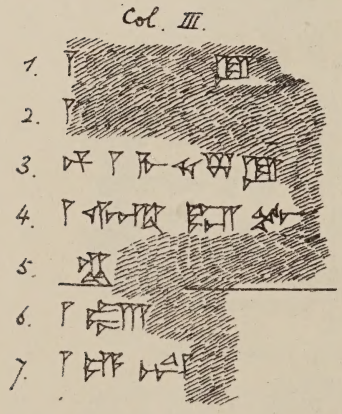
No. 943. [80-7-19, 262.]

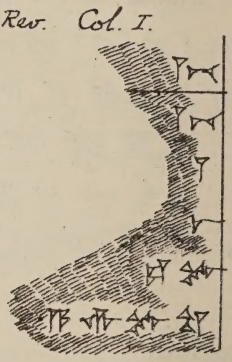


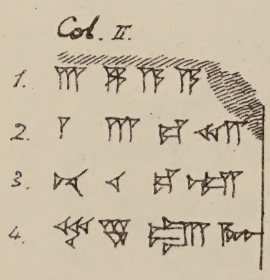


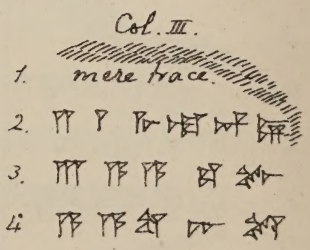
No. 944. [80-7-19, 144.]

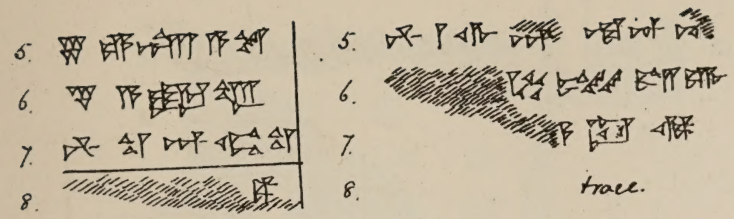




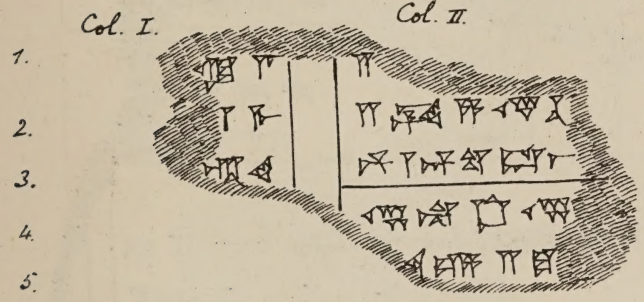




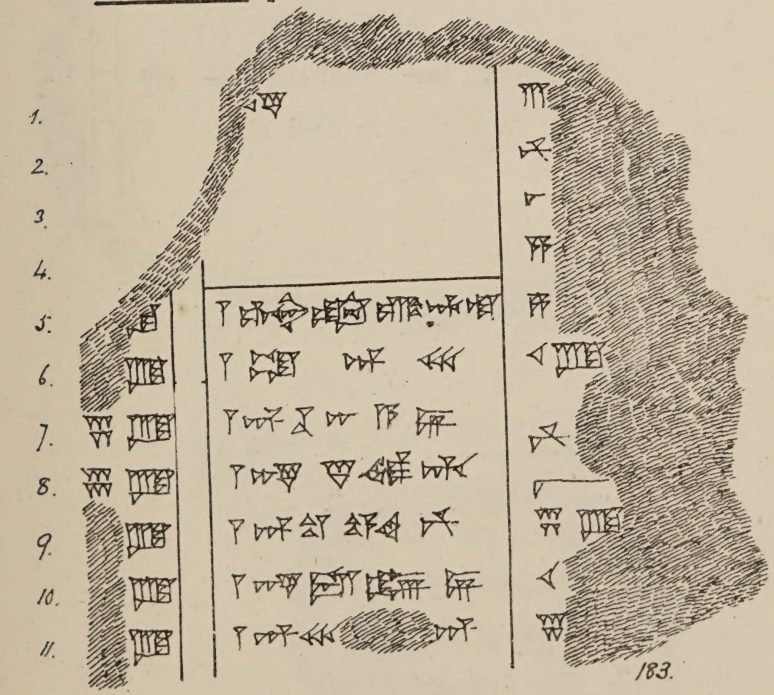


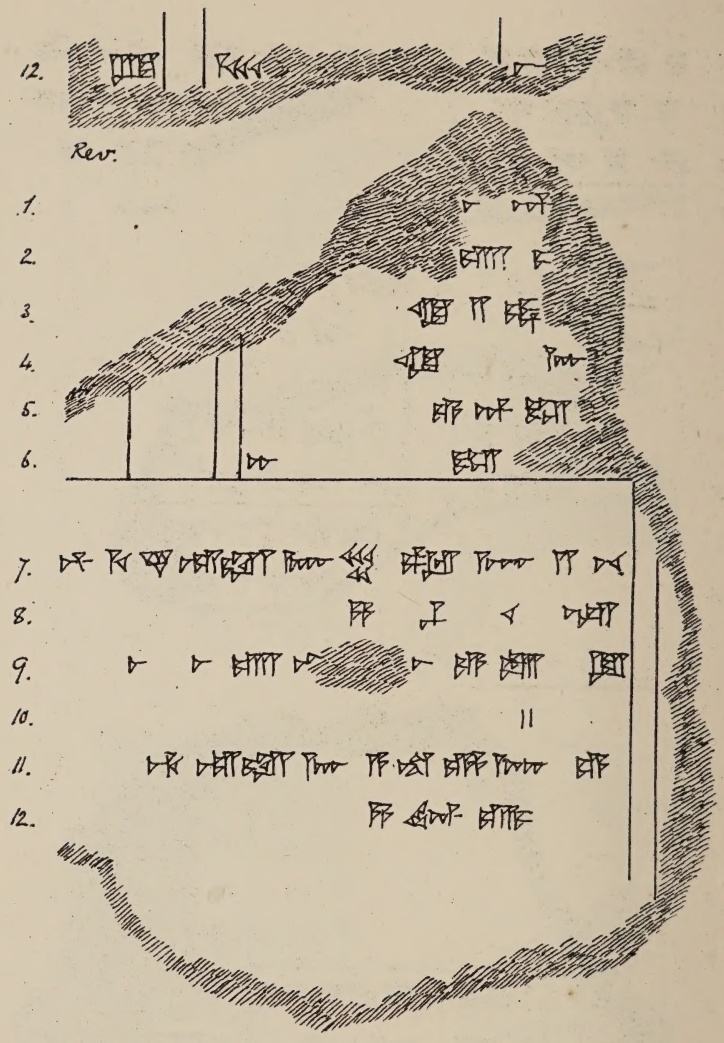


No. 945. [K. 10317.]

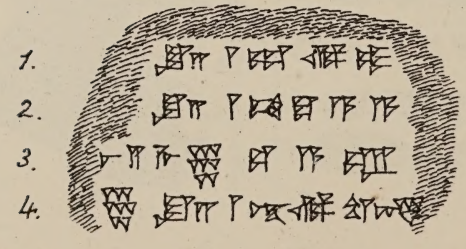


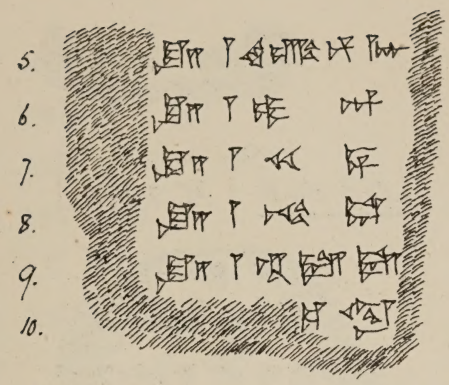
No. 946. [K. 9751.]



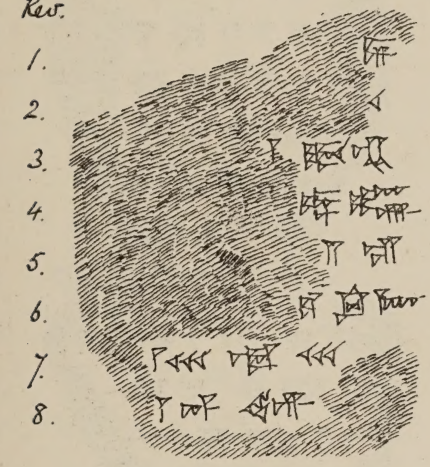


No. 947. [K. 9162.]

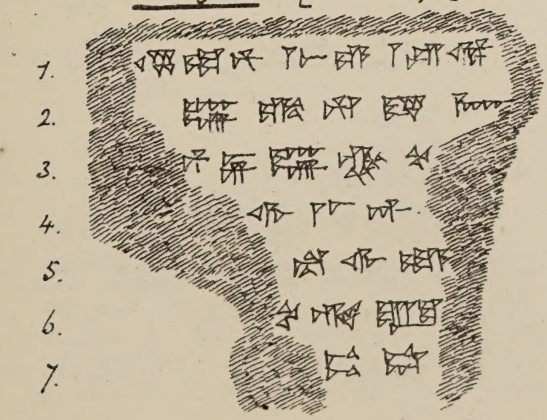


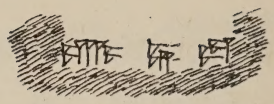


Rev.

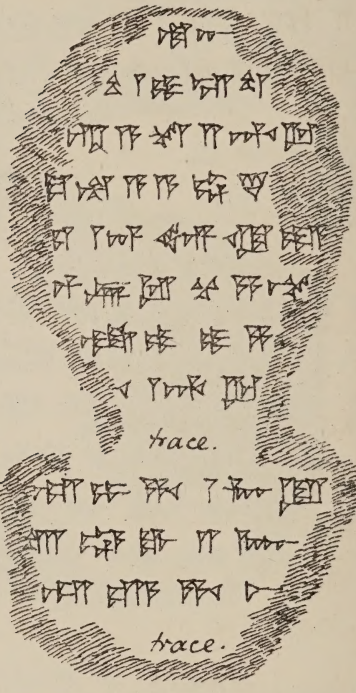


No 948. [K. 1537.]



8. 

No. 949. [K. 1975.]

1. 
2.
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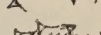
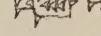
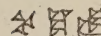
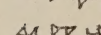
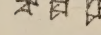
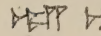
7.
8.
B.E. 1. trace.
R. 1.
2.
3.
4. trace.

No. 950. [K. 829.]

1. 
2. 
3. 
4. 
5. 
6. 

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B. E. 1.
R. 1.
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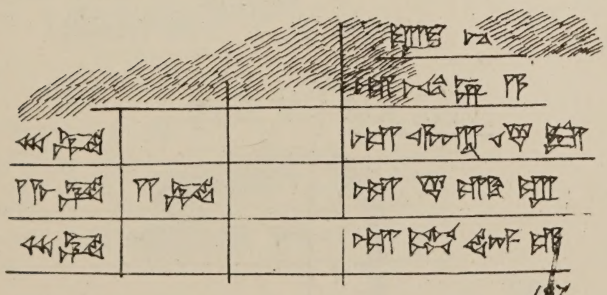
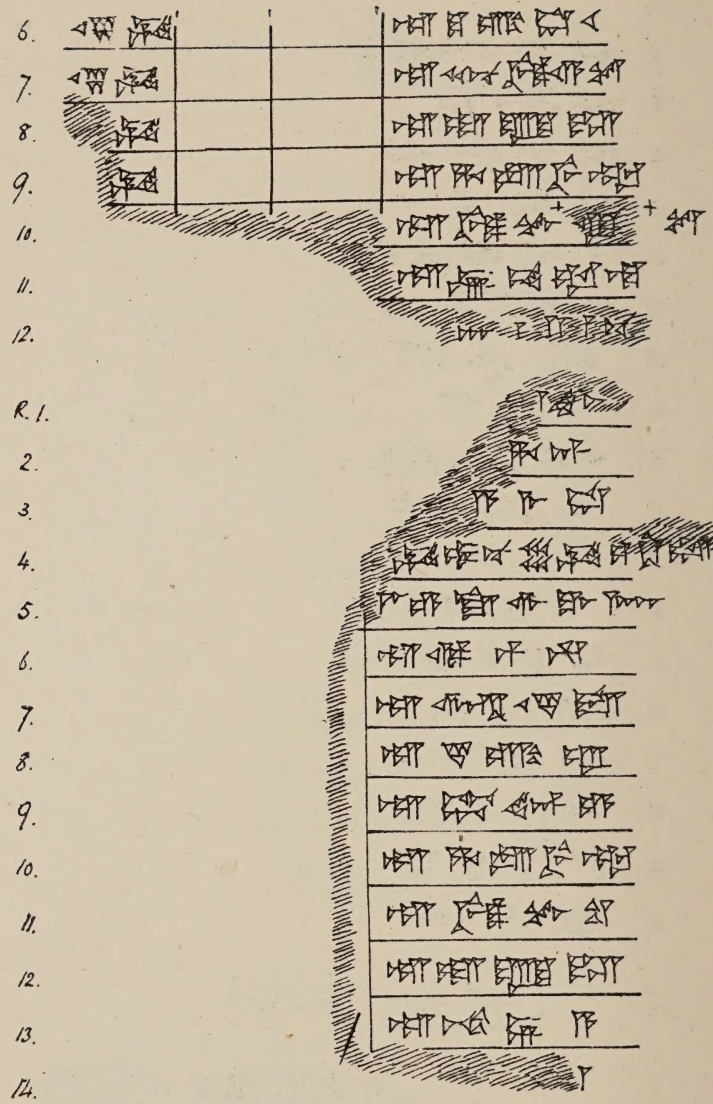
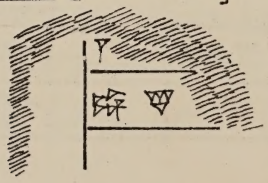
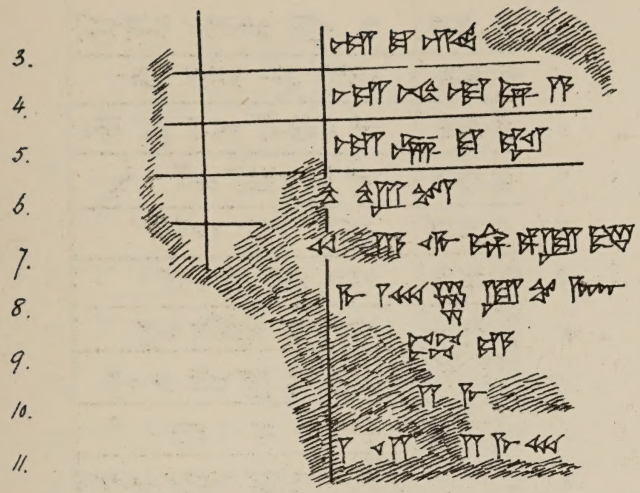
No. 951. [K. 276.]

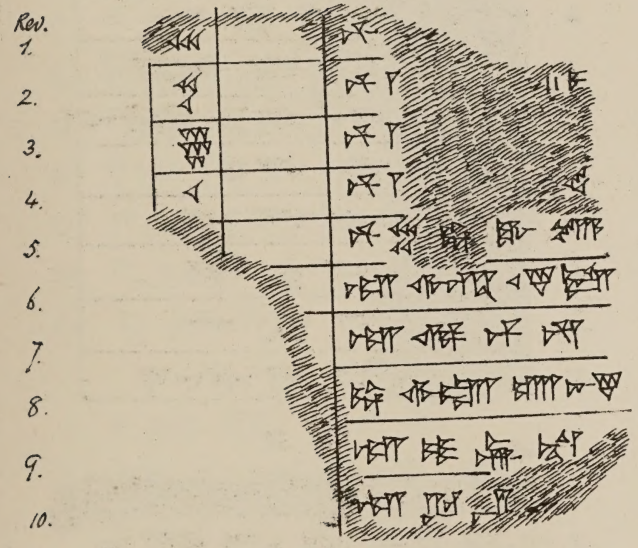




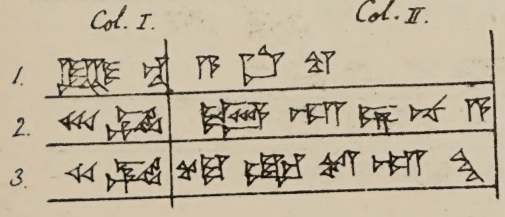
No. 952. [K. 9996.]

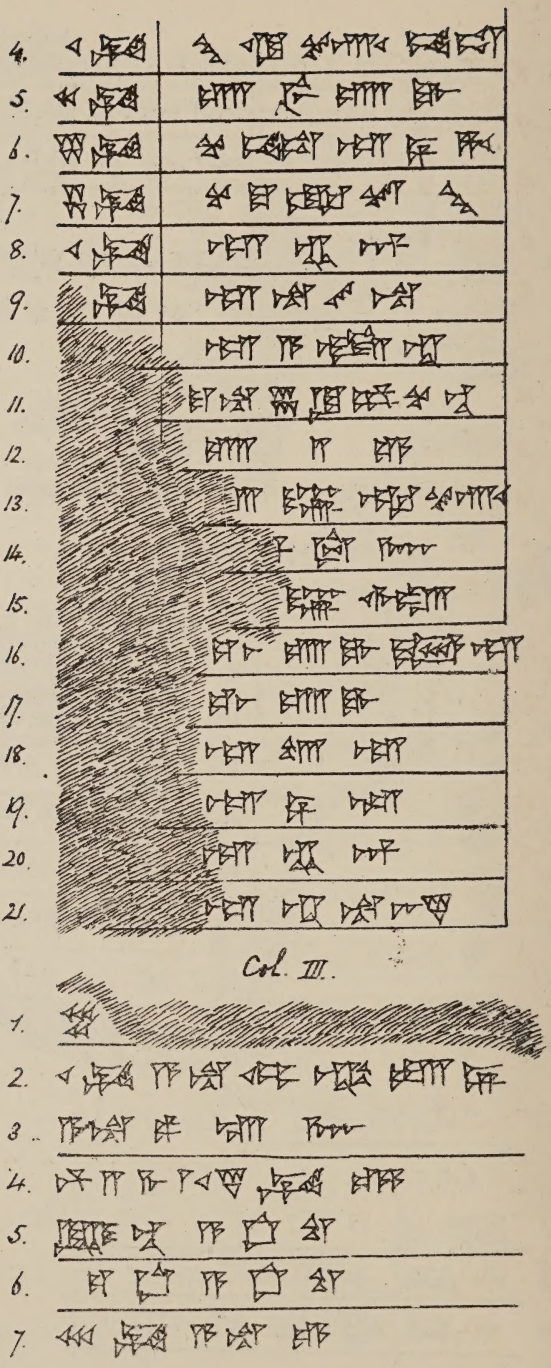




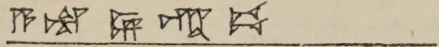


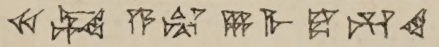
No. 953. [K. 1449.]

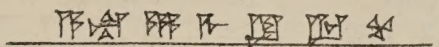


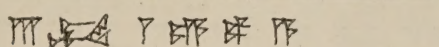


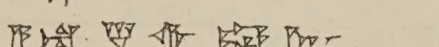
Col. III.

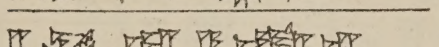
8. 

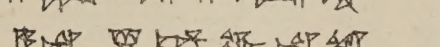
9. 

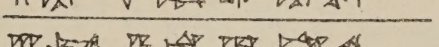
10. 

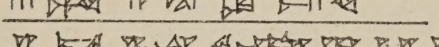
11. 

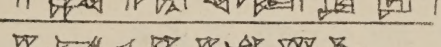
12. 

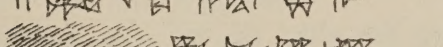
13. 

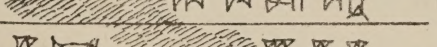
14. 

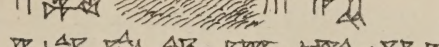
15. 

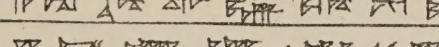
16. 

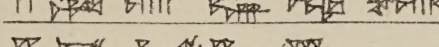
17. 

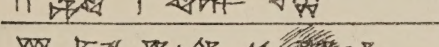
18. 

19. 

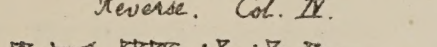
20. 

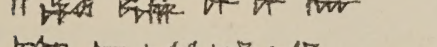
21. 

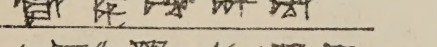
22. 

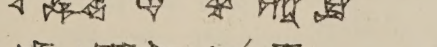
23. 

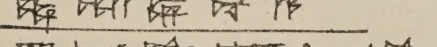
Reverse. Col. IV.

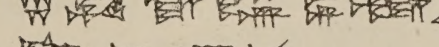
1. 

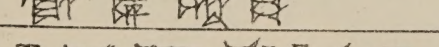
2. 

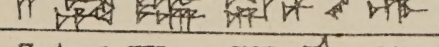
3. 

4. 

5. 

6. 

7. 

8. 

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an erased line follows.

Col. V.

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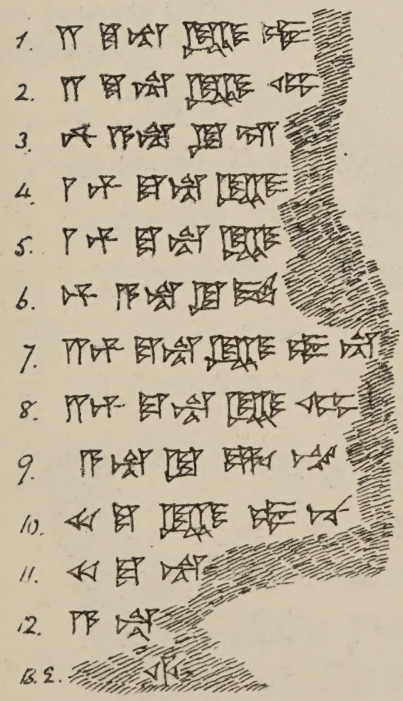
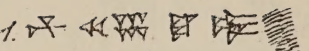
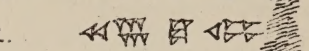
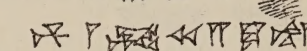
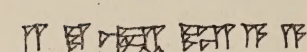
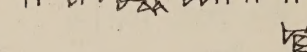
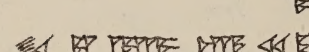
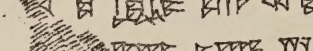
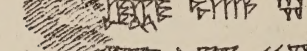
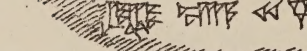
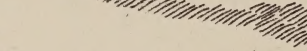
No. 954. [K.827.]

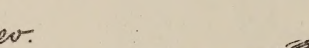
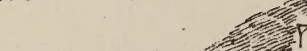
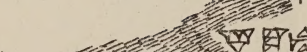
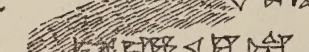


R.1. 
2. 
3. 

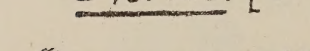
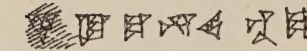
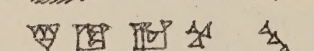
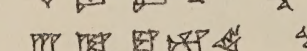
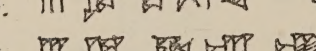
No. 955. [K. 11468.]

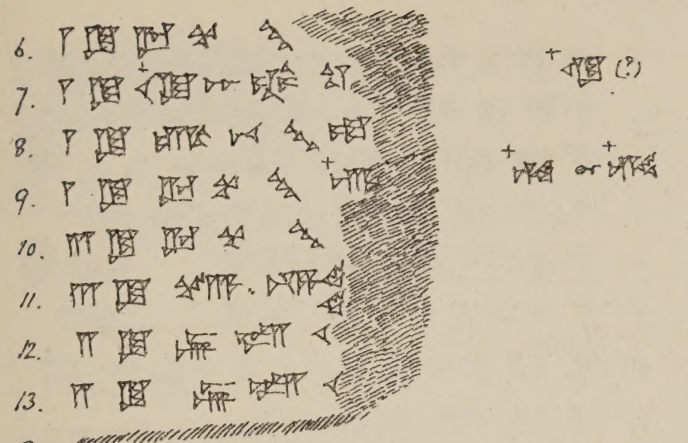
1. 
2. 
3. 
4. 
5. 
6. 
7. 

Rev.

1. 
2. 
3. 
4. 

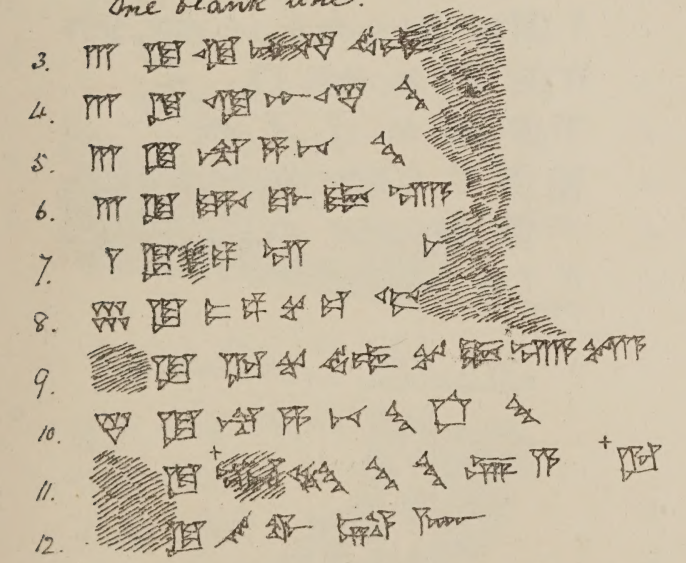
No. 956. [81-2-4, 259.]

1. 
2. 
3. 
4. 
5. 

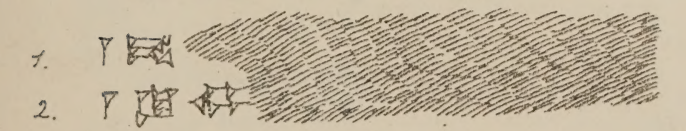


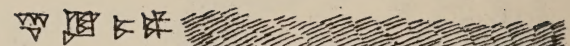
Rev.

one blank line.



No. 957. [Rm. 462.]



3. 
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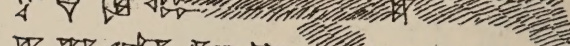
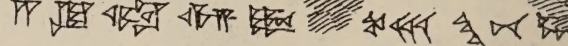
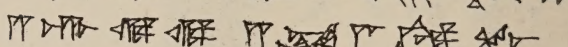
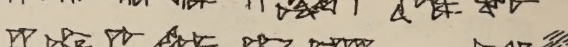
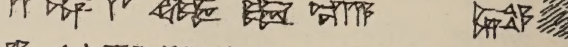
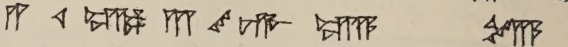
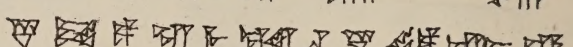
5. 
6. 
7. 
8. 
9. 
10. 
11. 

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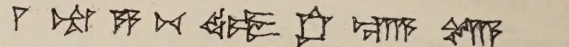
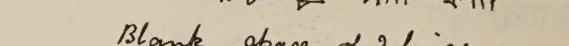
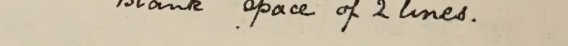
Rev.

1. 
2. 
3. 
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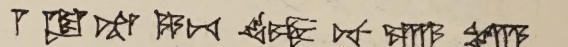
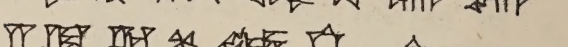
5. 
6. 

No. 958. [81-2-4, 318.]

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Rev.

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No. 959. [H. 1582.]

Rev. 1.

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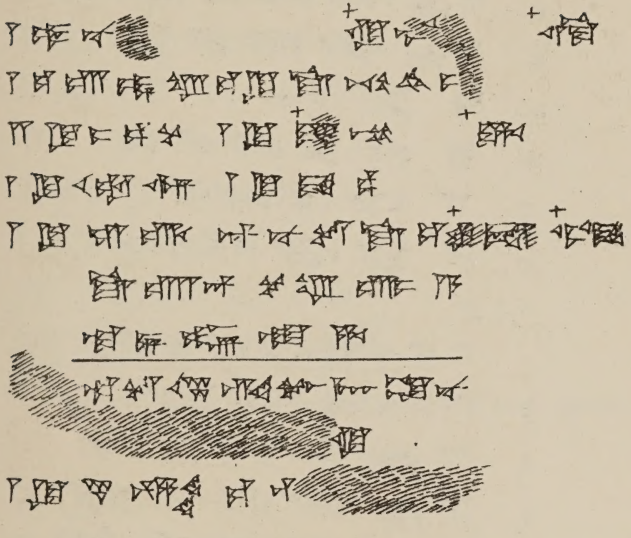

No. 960. [H. 108.]

Col. I.

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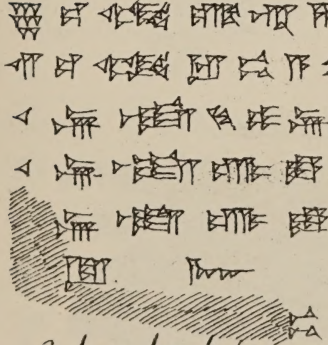
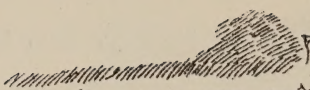
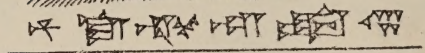
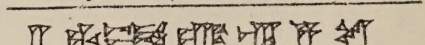
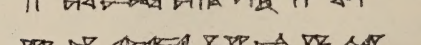


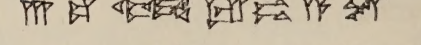
a long break here.

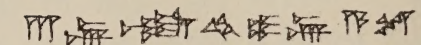
8. 

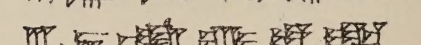
9. 

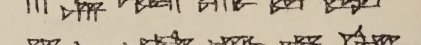
10. 

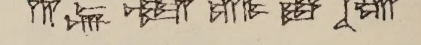
11. 

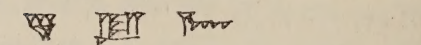
12. 

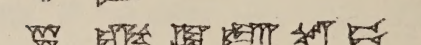
13. 

14. 

15. 

16. 

17. 

18. 

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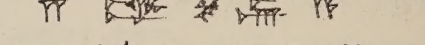
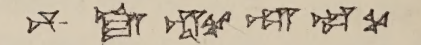
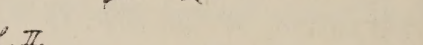
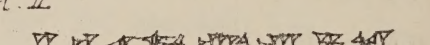
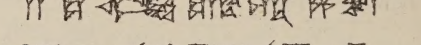
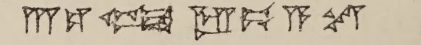
1. 

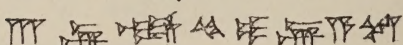
2. 

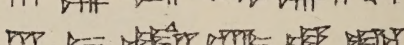
3. 

4. 

5. 

6. 

7. 

8. 

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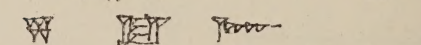
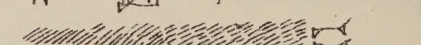
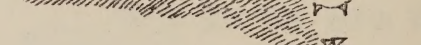
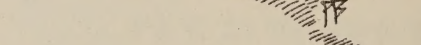
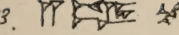
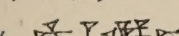
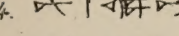
9. 

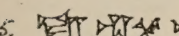
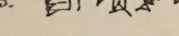
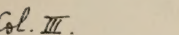
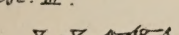
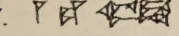
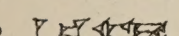
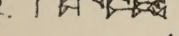
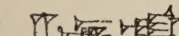
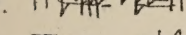
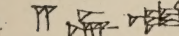
10. 

11. 

12. 

13. 
14. 
15. 

Col. III.

1. 
2. 
3. 
4. 
5. 
6. 
7. 
8. 
9. 
10. 

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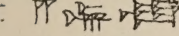
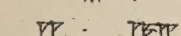
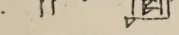
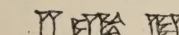
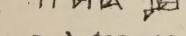
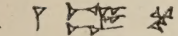
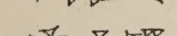
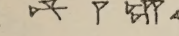
11. 
12. 
13. 
14. 
15. 

+ or

Col. IV.

1. 
2. 
3. 

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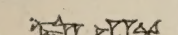
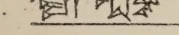
4. 
5. 

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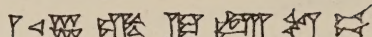
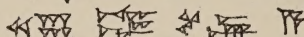
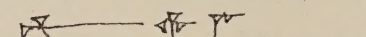
7. 
8. 
9. 

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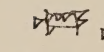
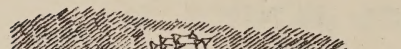
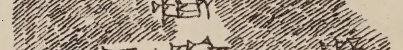
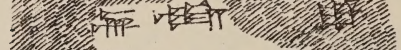
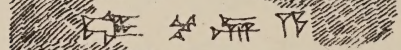
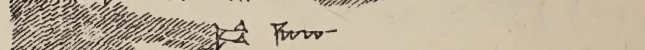
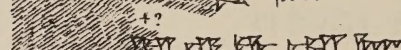
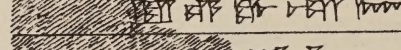
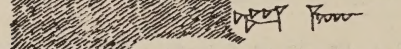
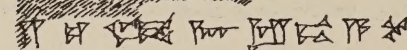
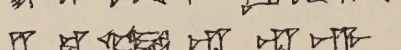
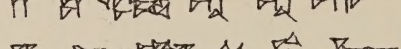
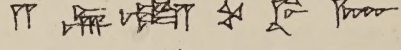
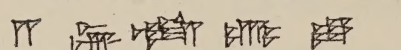
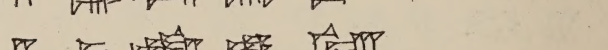
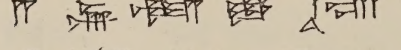
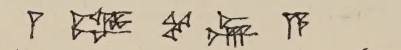
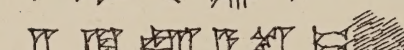
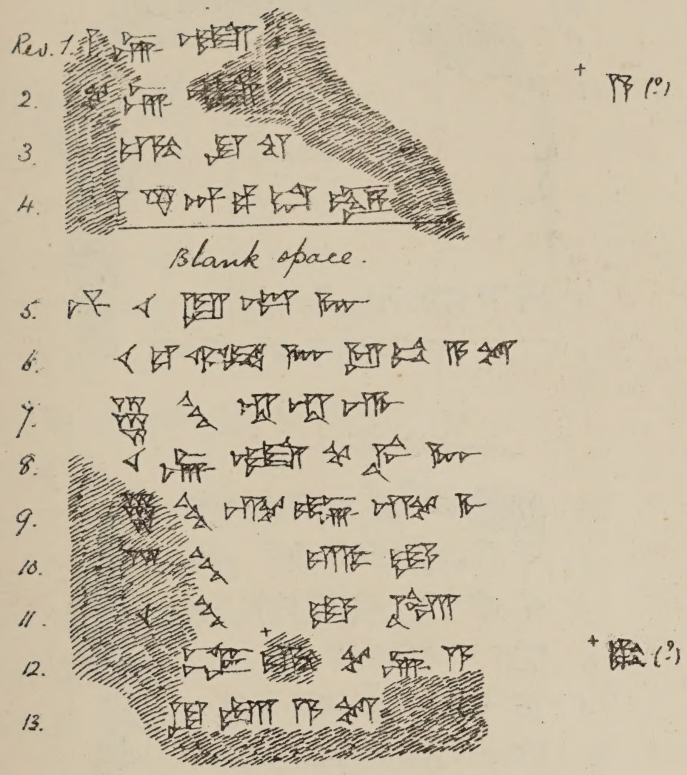
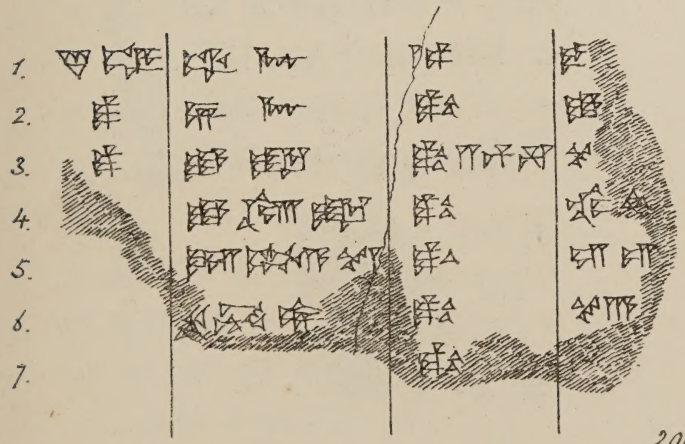
10.  .

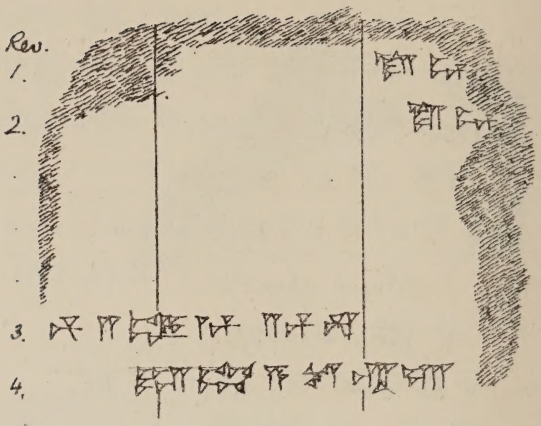
No. 961. [80-7-19, 104.]

1. 
2. 
3. 
4. 
5. 
6. 
7. 
8. 
9. 
10. 
11. 
12. 
13. 
14. 
15. 
16. 
17. 



No. 962. [K. 9984.]

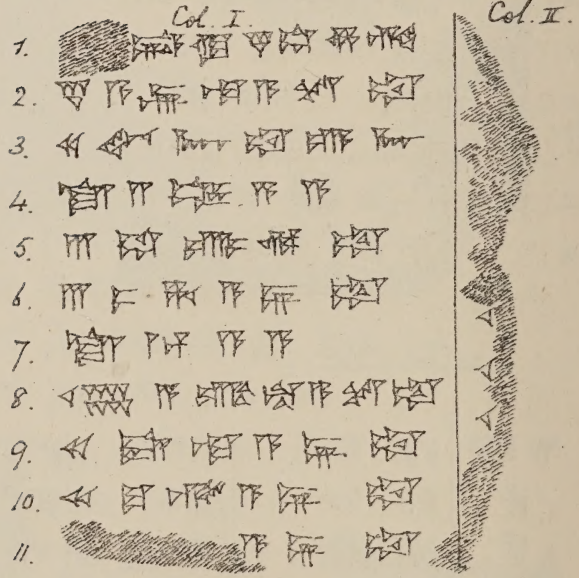


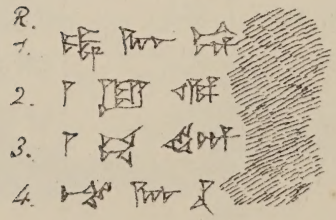


No. 963. [K. 4297.]

Col. I.

Col. II.





No. 964. [K. 1403.]

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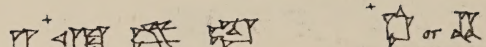
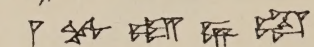
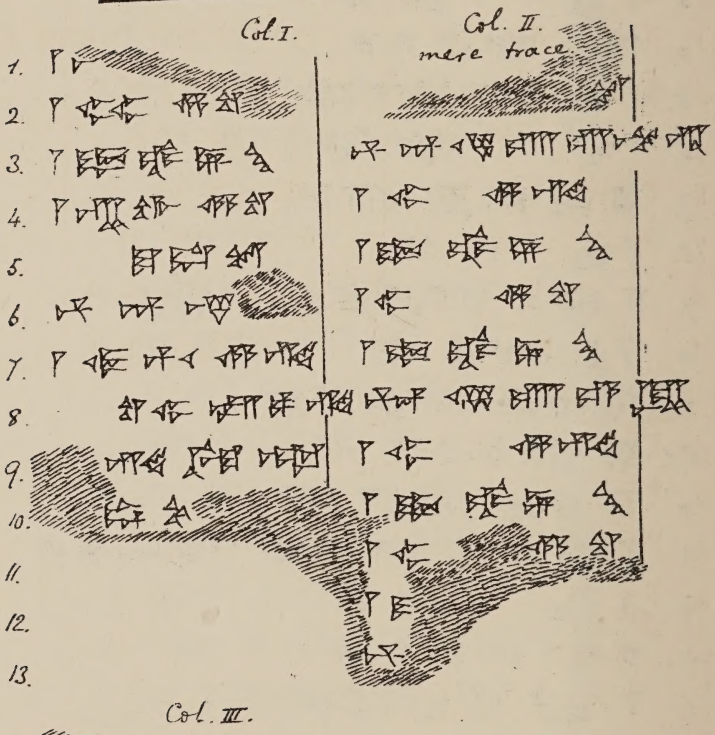
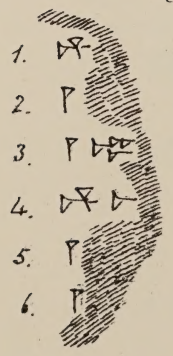
14. 

15. 

No. 965. [83-1-18, 532.]



Col. III.



No 966. [83-1-18, 597.]

Col. I.

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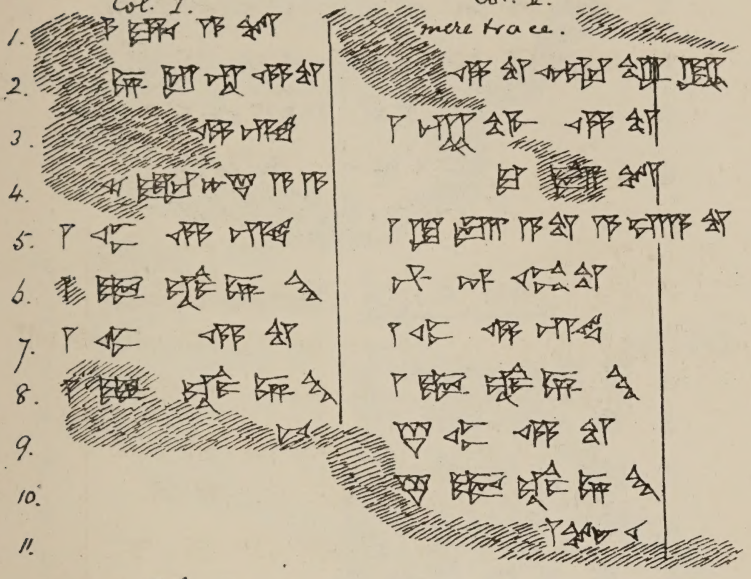
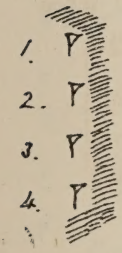
mere trace.



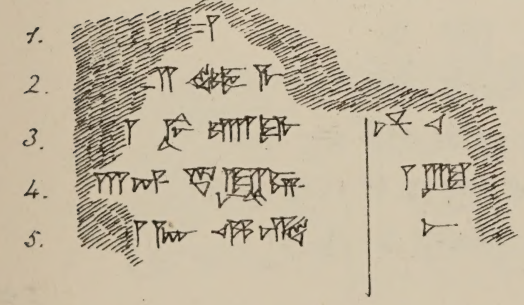
Col. III.

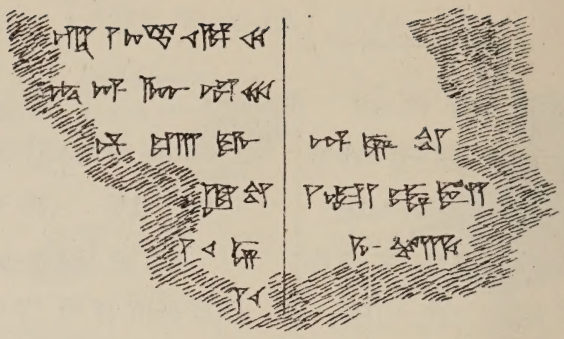


No. 967. [82-3-23, 105.]

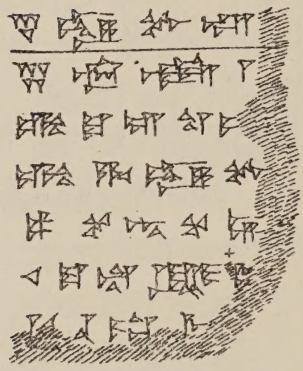
Col. I.

Col. II.





No. 968 [K. 9544.]



No. 969. [83-1-18, 515.]

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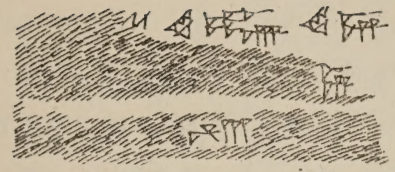
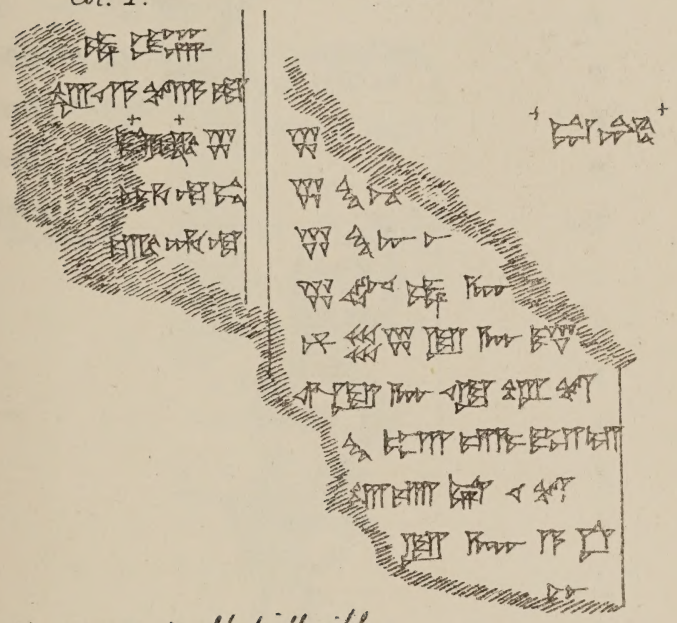


No. 970. [K. 9119.]

Col. I. Col II.



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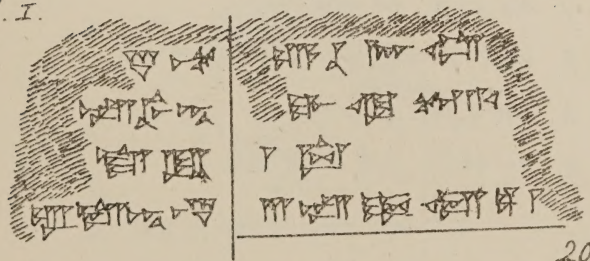
No. 971. [Sm. 287.]

Col. I.



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Rev. Col. III.

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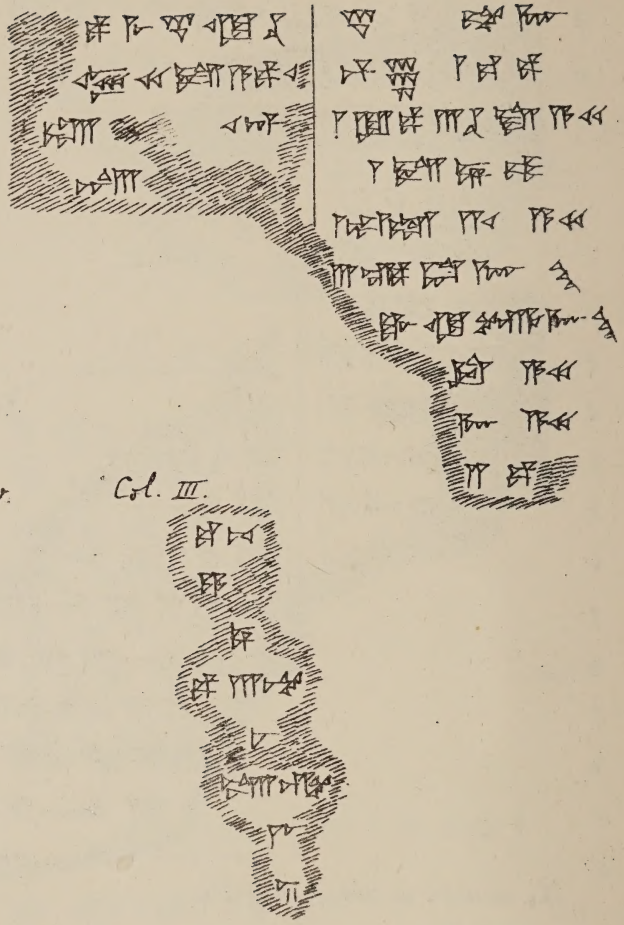

No. 972. [K. 852.]

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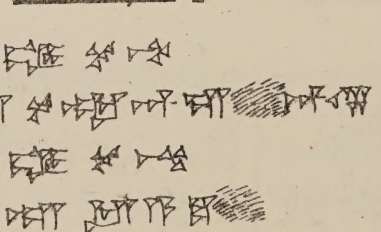
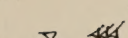
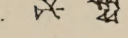
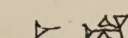


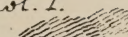
R. 1. 

2. 

3. 

No. 973. [Sm. 360.]

Col. I.

1. 

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a blank line.

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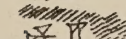
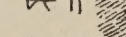
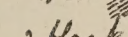
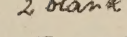
Col. II.

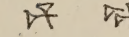
1. 

2. 

3. 2 blank lines.

3. 

4. 

5. 

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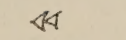
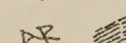
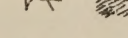
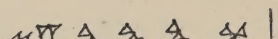
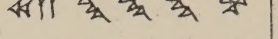
7. an erased line.

8. 

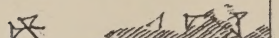
9. 

10. 

11. 

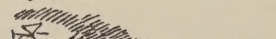
12. 

Two blank lines.

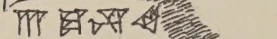
13. 

14.

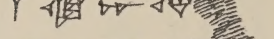
Col. III.

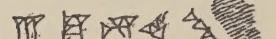
1. 

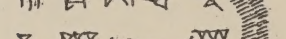
2.

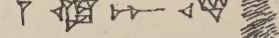
3. 

4.

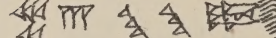
5. 

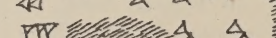
6. 

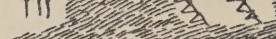
7. 

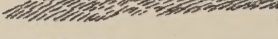
8. 

Rev. Col. VI.

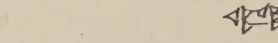
1. 

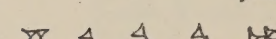
2. 

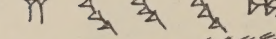
3. 

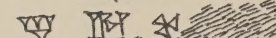
4. 

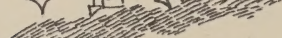
Col. VII.

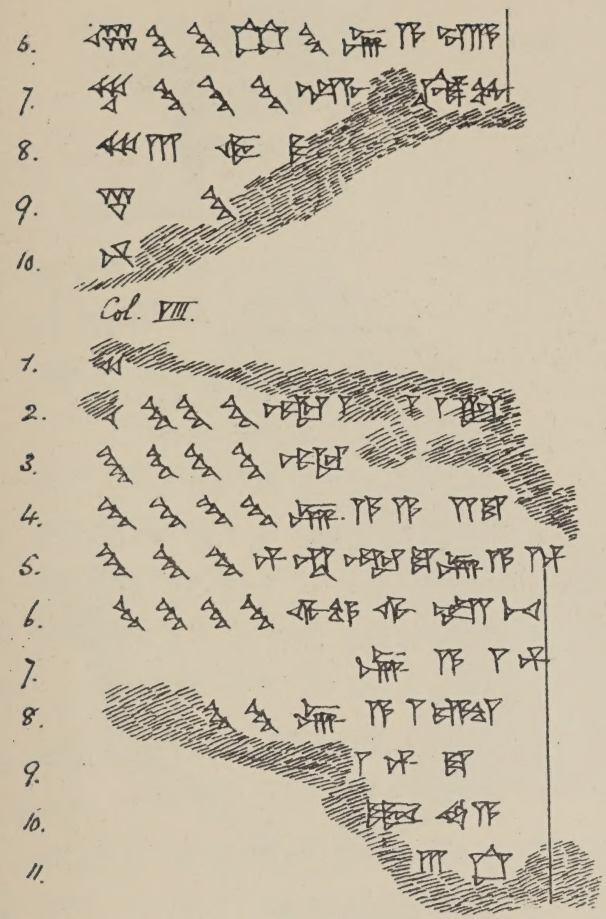
1. 

2. 

3. 

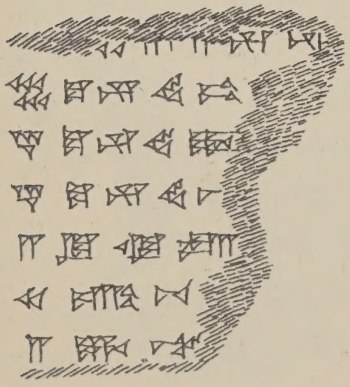
4. 

5. 



Col. VIII.

No. 974. [K. 13179.]



Rev. 1.

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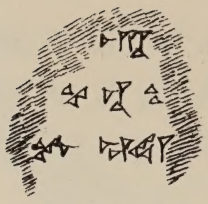
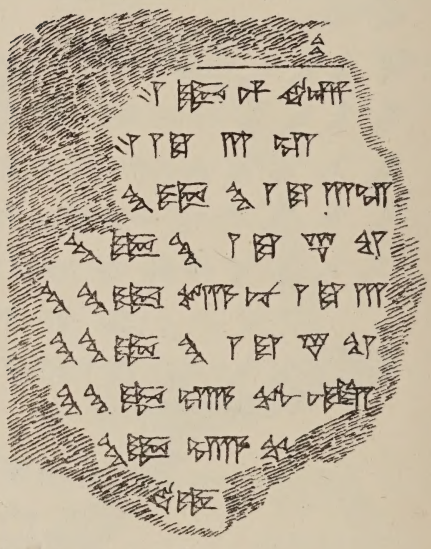
3.

4.

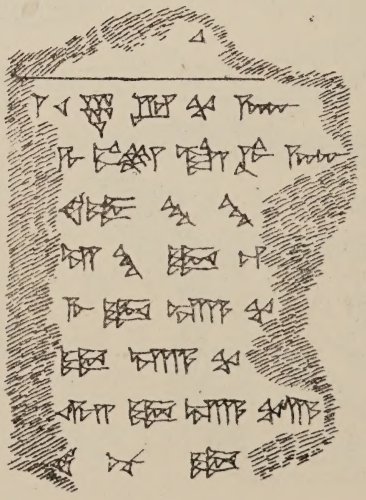
5.



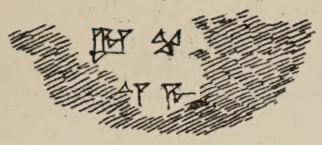
No. 975. [K. 11872.]



Rev.



10.
11.



No. 976. [81-2-4, 258.]

Reverse(?)

1.
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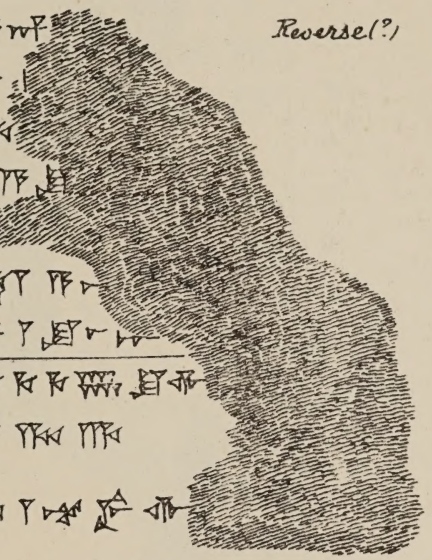

Obverse(?)

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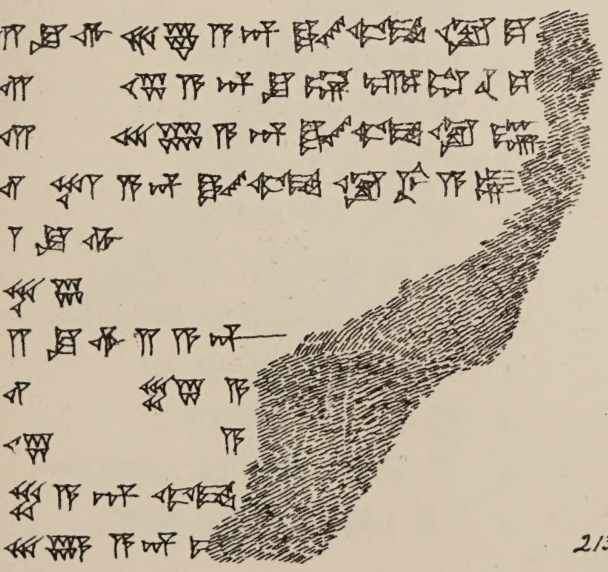
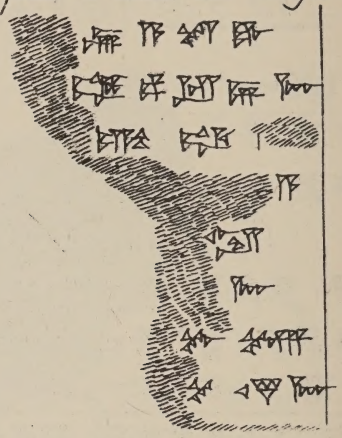
11.



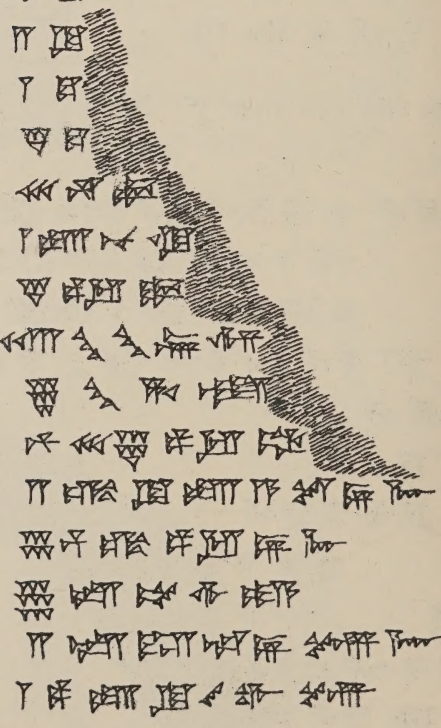
No. 977 [80-7-19, 112.]

Col. I.

1. The first 6 lines are illegible.



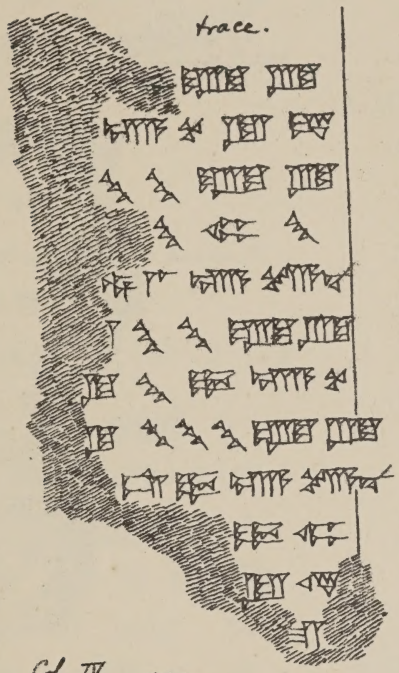
Col. II.



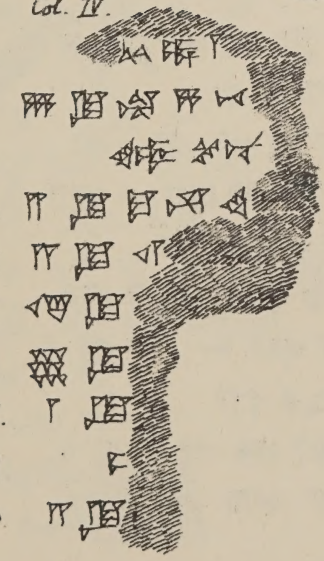
15.

16.

Rev. Col. III.



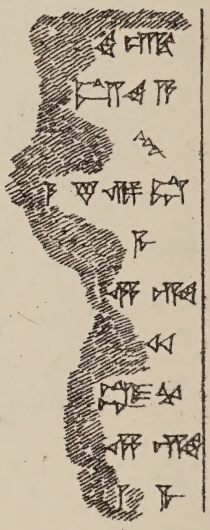
Col. IV.



11.
12.

No. 978. [80-7-19, 122.]

Col. I.



1.
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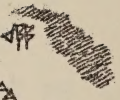
Col. II.



1.
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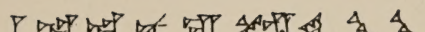
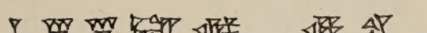
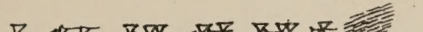
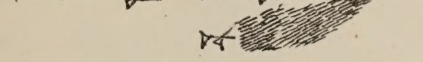
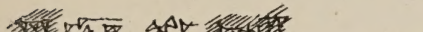
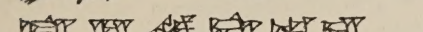
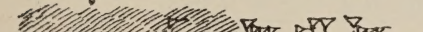
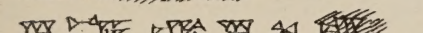
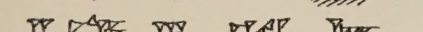
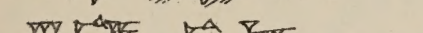
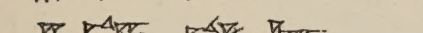
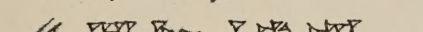
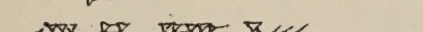
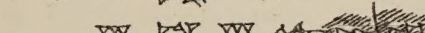
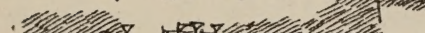
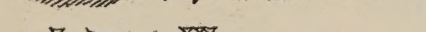
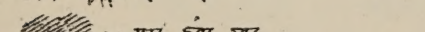
11. 
12. 
13. 
14. 

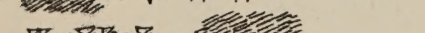
Col. III.

1.
2.
3. Traces of 3 more lines (?)

No. 979. [81-2-4, 54.]

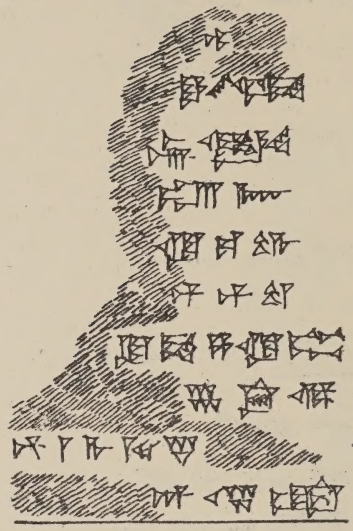
1. 
2. 
3. 
4. 
5. 
6.
7. 
8. 
9. 
10. 
11. 
12. 

1. 
2. 

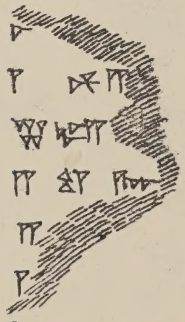
1. 
2.

No. 980. [81-2-4, 268.]

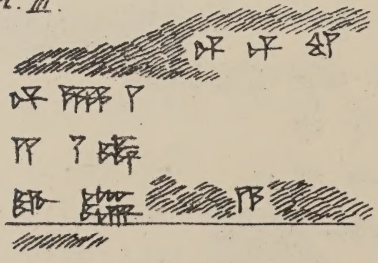
Col. I.



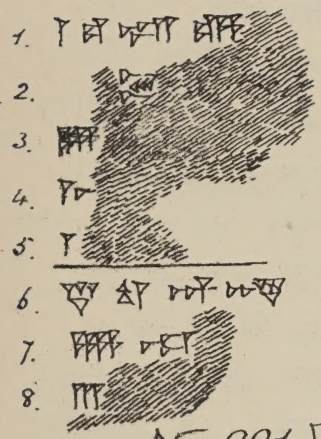
Col. II.



Col. III.



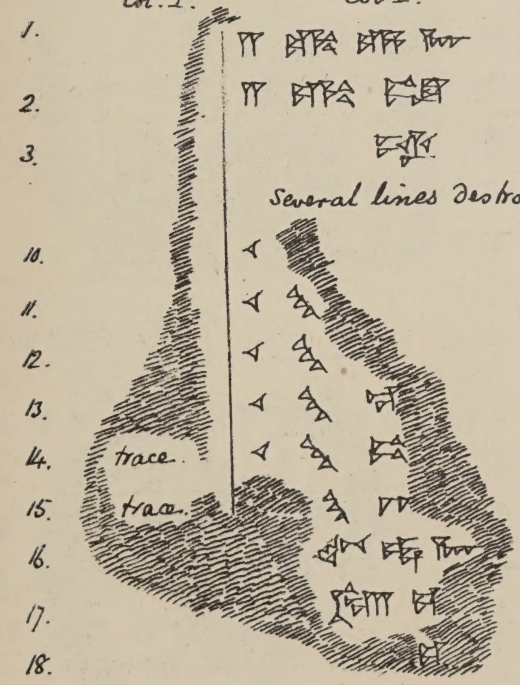
Col. IV.



a few more traces.

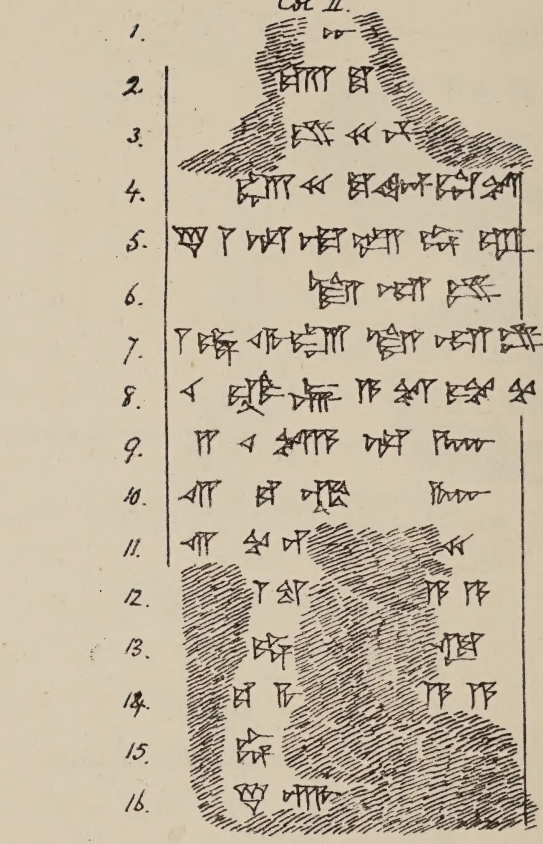
No. 981. [83-1-18, 454.]

Col. I. Col II.



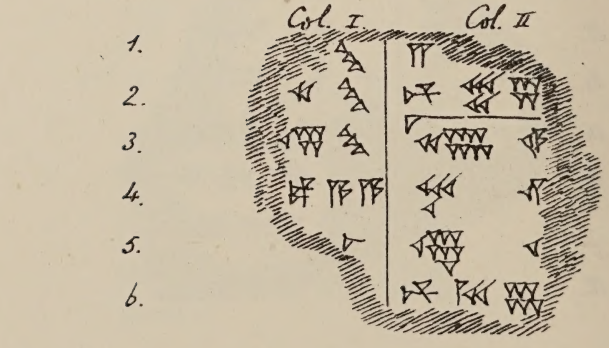
Rev.

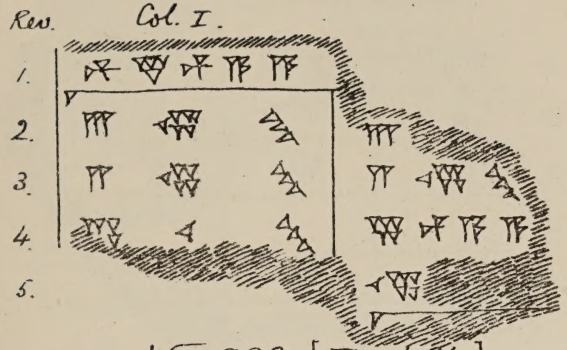
Col. II.



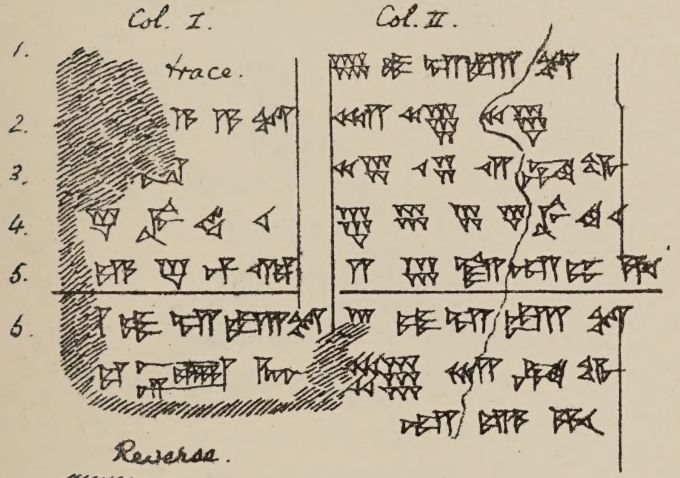
No. 982 [Sm. 992]

Col. I Col. II

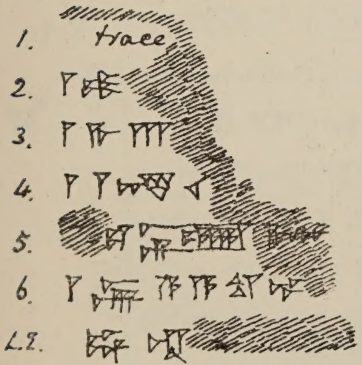




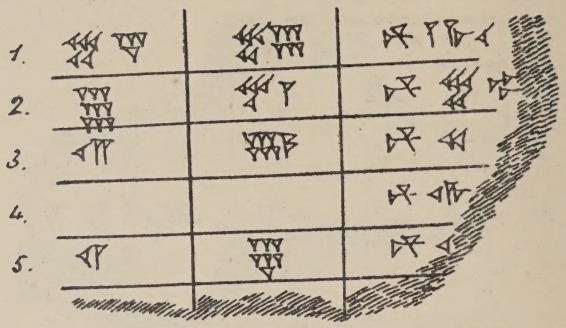
No. 983. [Rm. 594.]



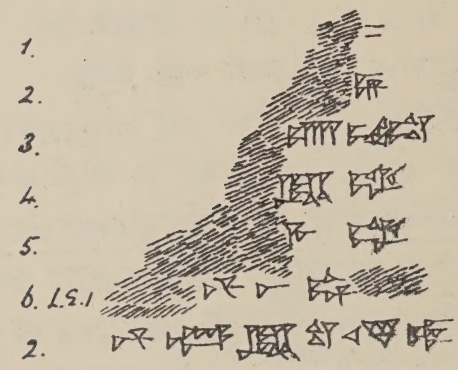
Reverse.



No. 984. [K. 100867.]

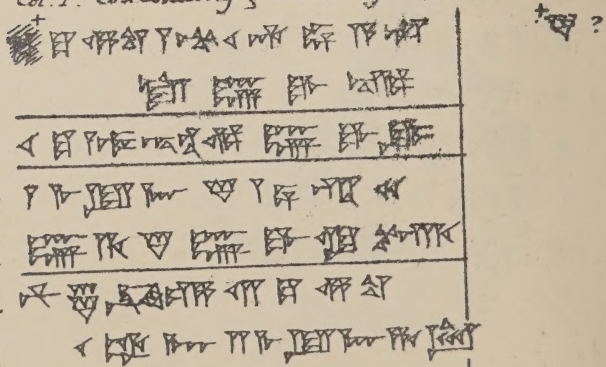


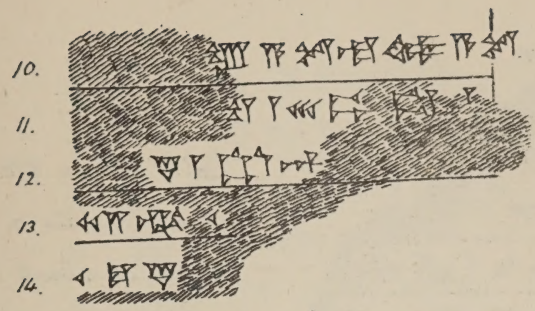
No. 985. [81-2-4, 284.]



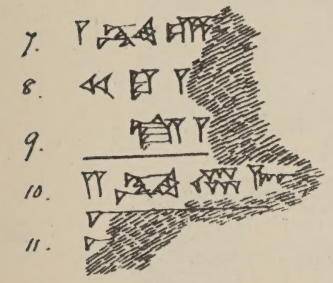
No. 986. [K. 8774.]

Col. I. continuing & restoring no. 815.

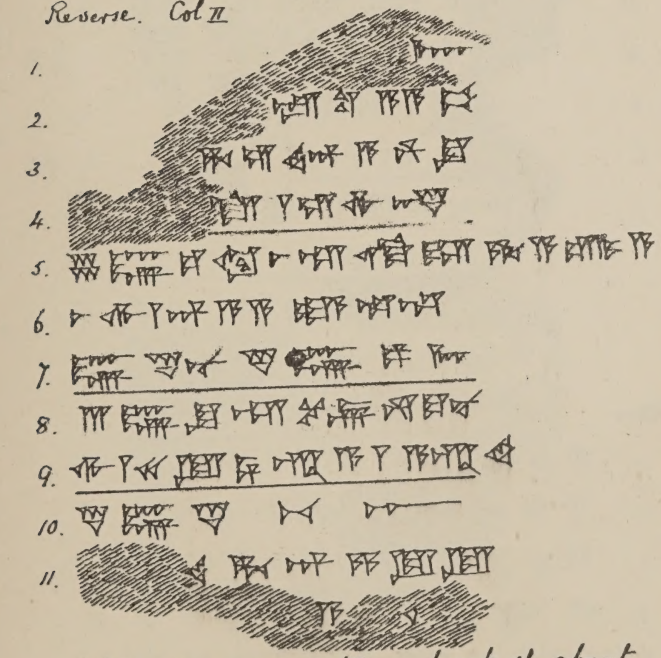




Col. II. continued.

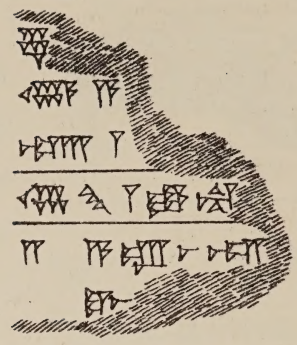


Reverse. Col II



No. 815 goes on after a break of about 9 lines.

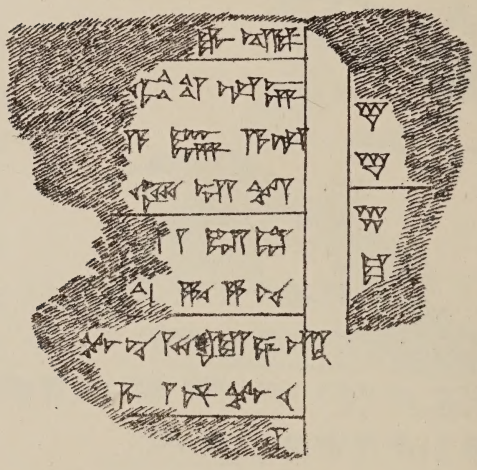
Col. III.



Col. III. of no. 815 goes on after a break of about 10 lines.

No. 987. [81-2-4, 403.]

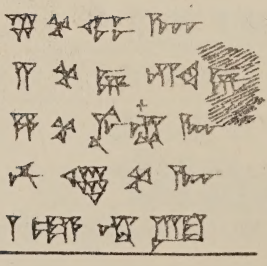
Col I.



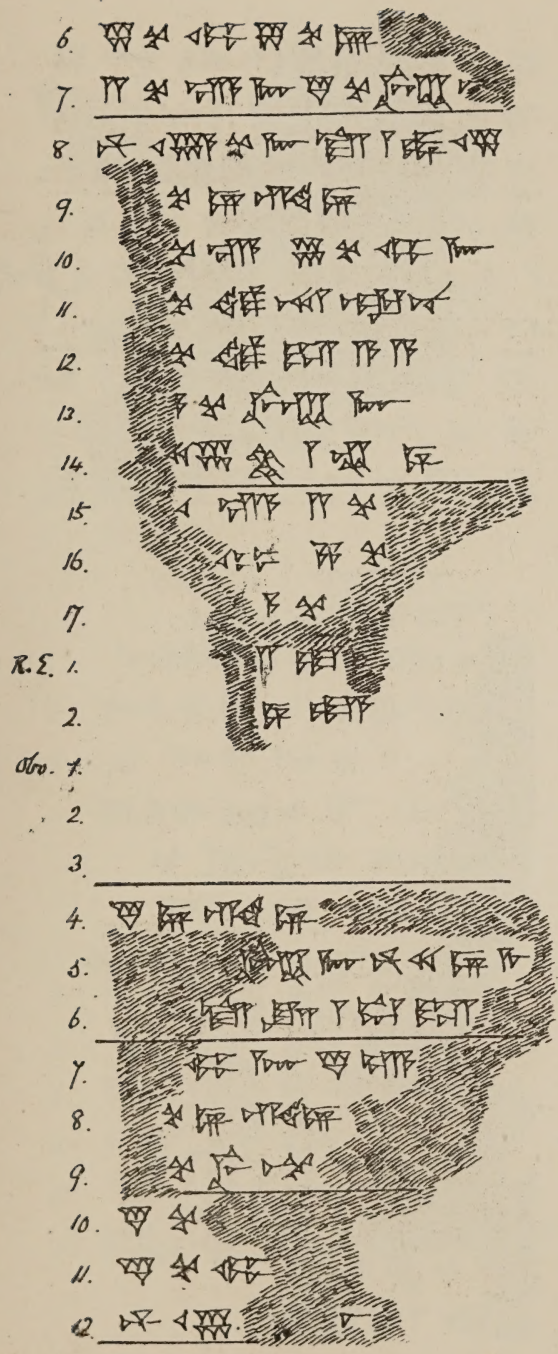
Col. II.

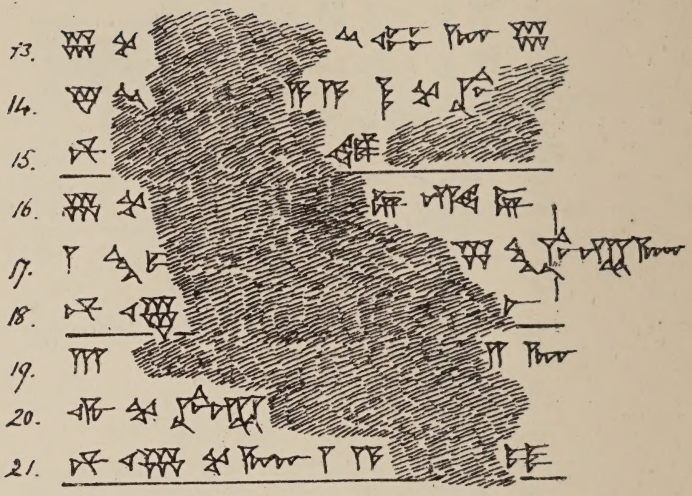
No. 988. [H. 952.]

Rev.

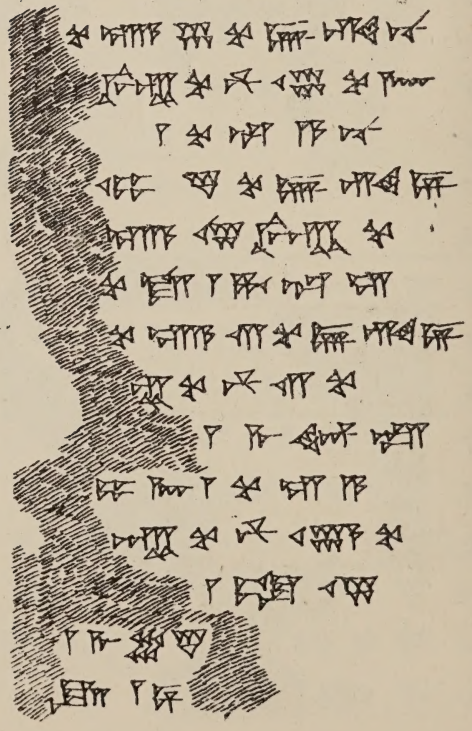


(?)





No. 989. [K. 968.]



1.
2.
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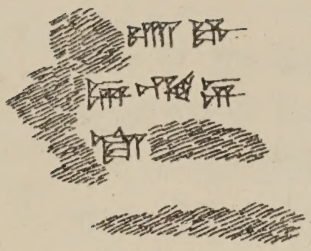
4.



No. 990. [K. 847.]

1.
2.
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No. 991. [K. 863.]

1.
2.
1.

No. 992. [Rm. 70.]

1.
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4.
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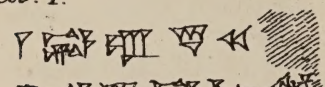
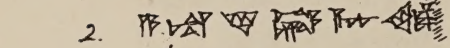
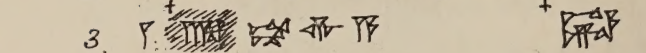
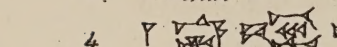
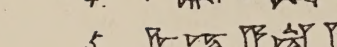
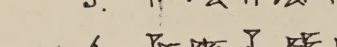
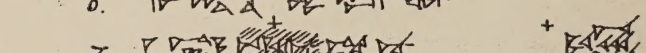
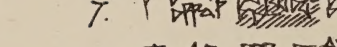
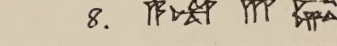
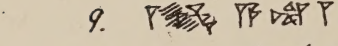
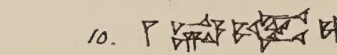
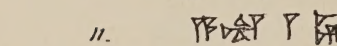
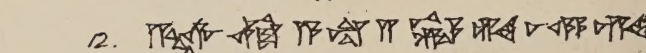
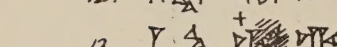
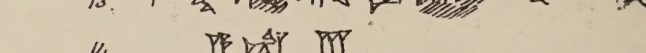
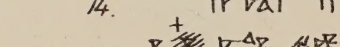
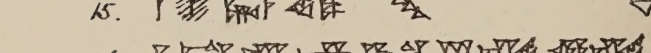
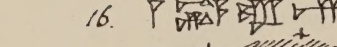
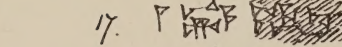
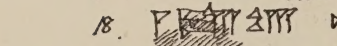
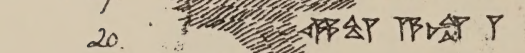
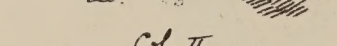
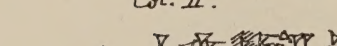
6.

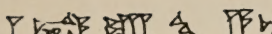
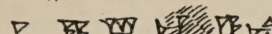
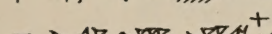
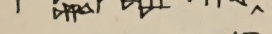
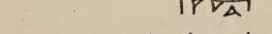
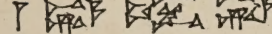
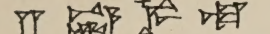
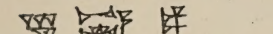
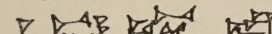
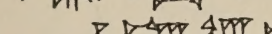
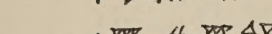
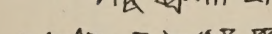
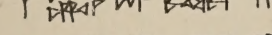
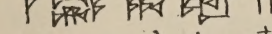
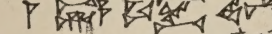
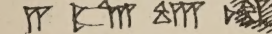
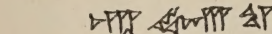
No. 993. [K. 23.]

Col. I.

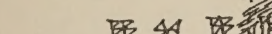
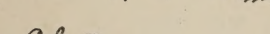
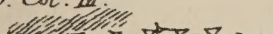
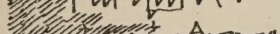
1. 
2. 
3. 
4. 
5. 
6. 
7. 
8. 
9. 
10. 
11. 
12. 
13. 
14. 
15. 
16. 
17. 
18. 
19. 
20. 

Col. II.

1. 
2. 
3. 

4. 
5. 
6. 
7. 
8. 
9. 
10. 
11. 
12. 
13. 
14. 
15. 
16. 
17. 
18. 
19. 
20. 

Rev. Col. III.

1. 
2. 
3. 
4. 
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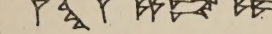
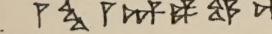
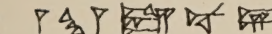
6. 
7. 
8. 

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Col. IV.

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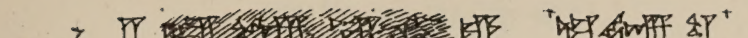
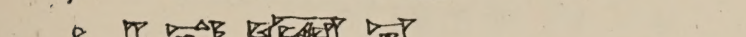
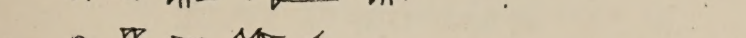
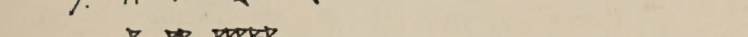
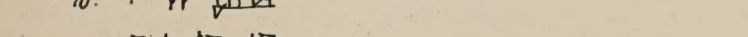
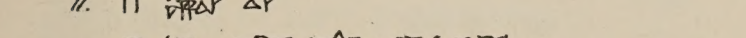
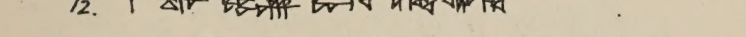
7. 
8. 
9. 
10. 
11. 
12. 
13. 
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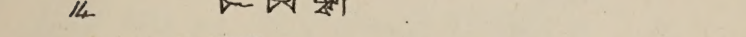
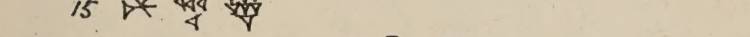
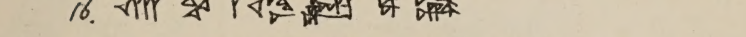
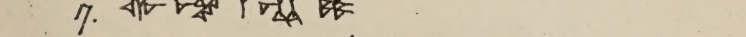
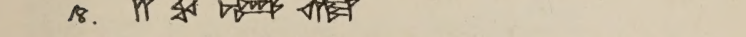
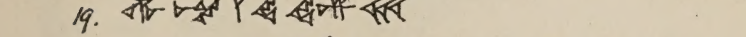
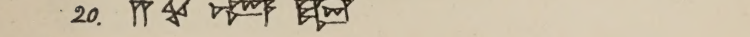
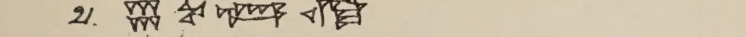
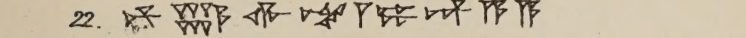
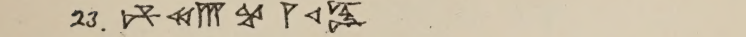
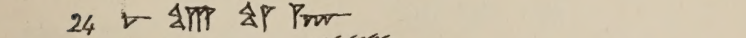
15 
16. 
17. 
18. 
19. 
20. 
21. 
22. 
23. 
24 
25. 
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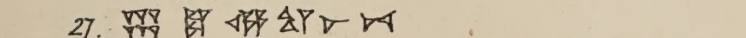
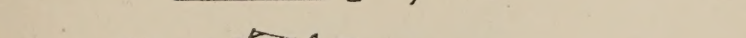
28. 

No. 994. [K. 726.]

1. 

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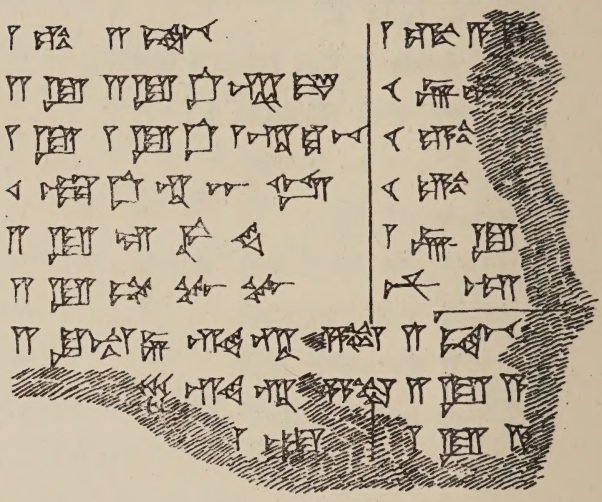
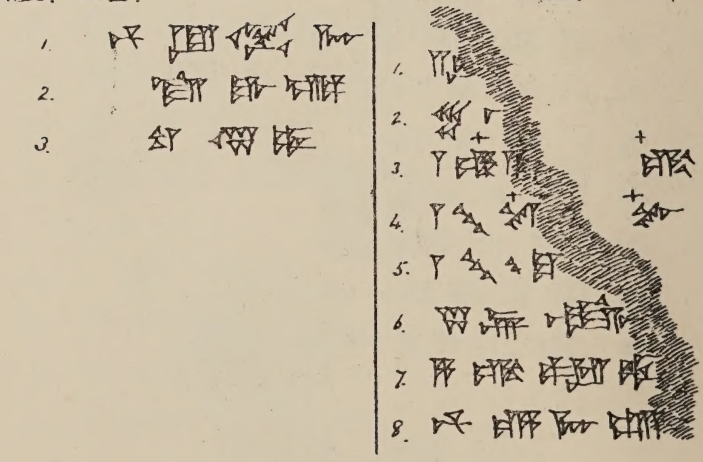
No. 995. [K. 1548.]

Col. I. Col. II.



Rev. Col. III. Col. III.



No. 996. [K. 757.]

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No. 997. [K. 1534.]

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Rev.

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No. 998. [K. 707.]

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No. 999. [K. 708.]

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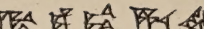
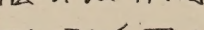
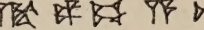
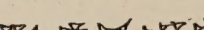
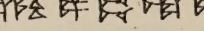
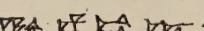
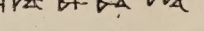
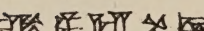
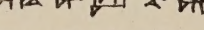
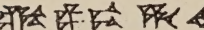
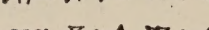
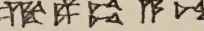
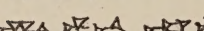
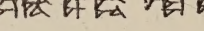
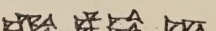
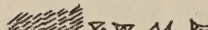
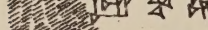
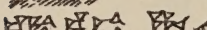
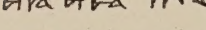
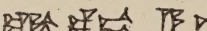
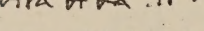
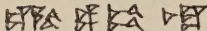
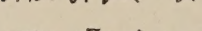
3. 
4. 
5. 
1. 
1. 
2. 
3. 

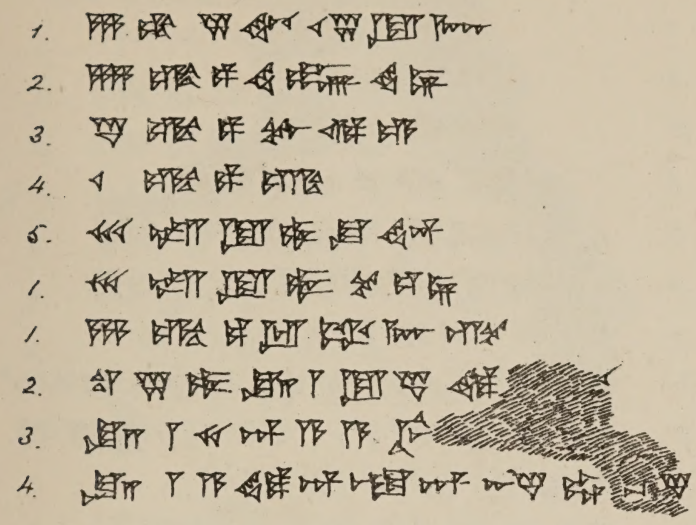
No. 1000. [K. 797.]

1. 
2. 
3. 
4. 
5. 
1. 
1. 
2. 

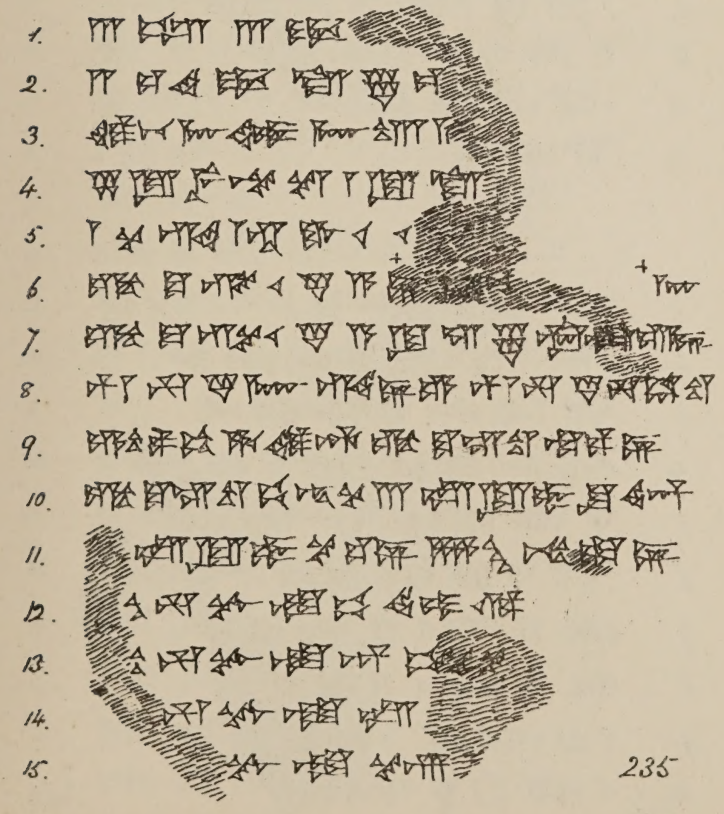
No. 1001. [Sm. 1039.]

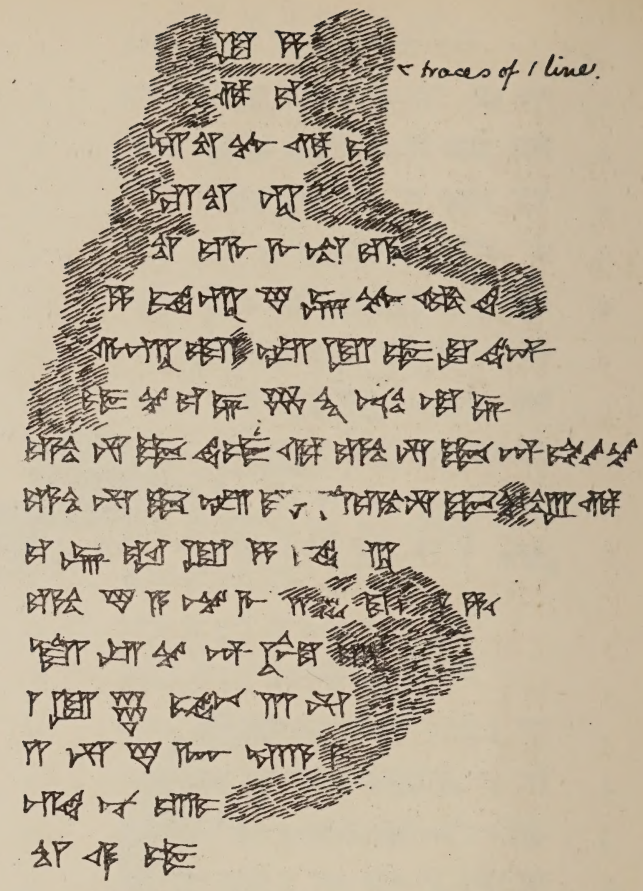
1. 
2. 
3. 
4. 
5. 
1. 
1. 
2. 

No. 1002. [K. 796.]



No. 1003. [K. 936.]



16. 
R. 1. < traces of 1 line.
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No. 1004. [K. 1387.]

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11. [illegible]
12. [illegible]
13. [illegible]
14. [illegible]
R. 15. [illegible]
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4. Two lines blank.
[illegible]

No. 1005. [H. 836.]

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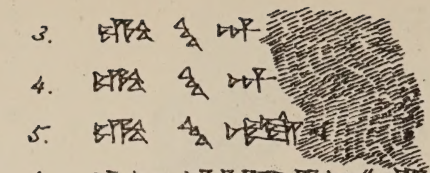
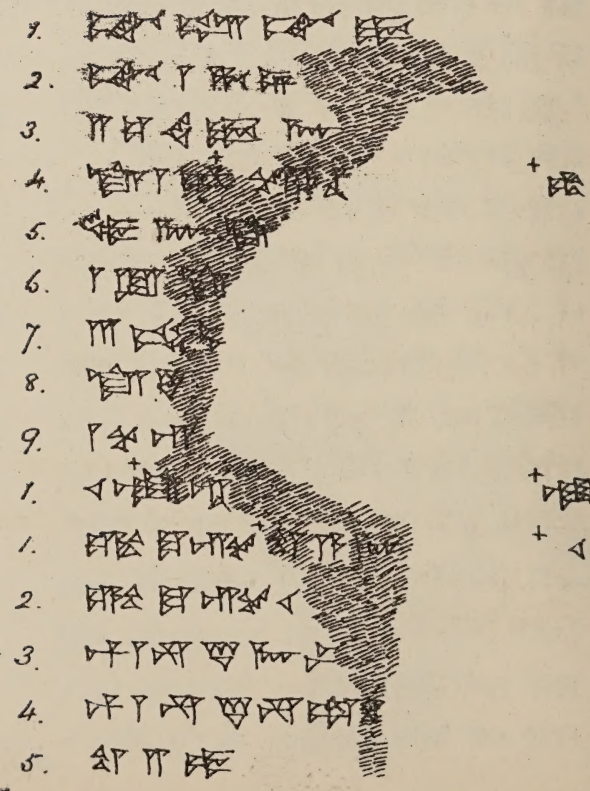
6. [illegible]
7. [illegible]
8. [illegible]
9. [illegible]
10. [illegible]
11. [illegible]
12. [illegible]
13. [illegible]
14. [illegible]
1. [illegible]
2. [illegible]
1. [illegible]
2. [illegible]

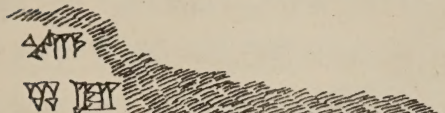


No. 1006. [K.880a.]



6.

No. 1007. [K. 1131.]



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No. 1008. [K. 928.]

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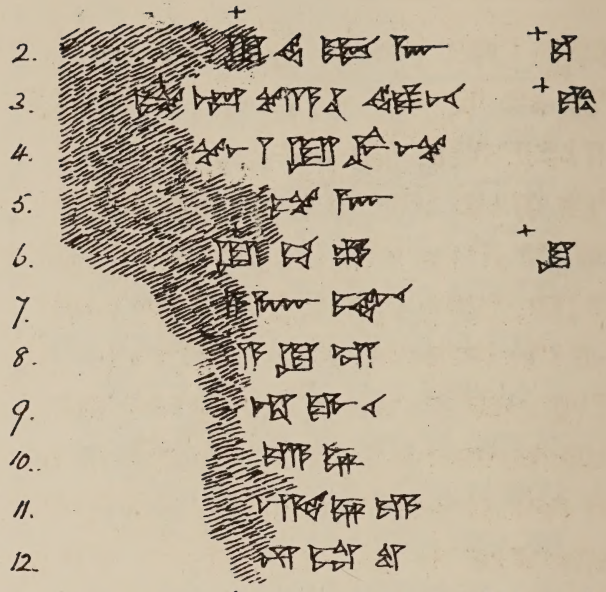
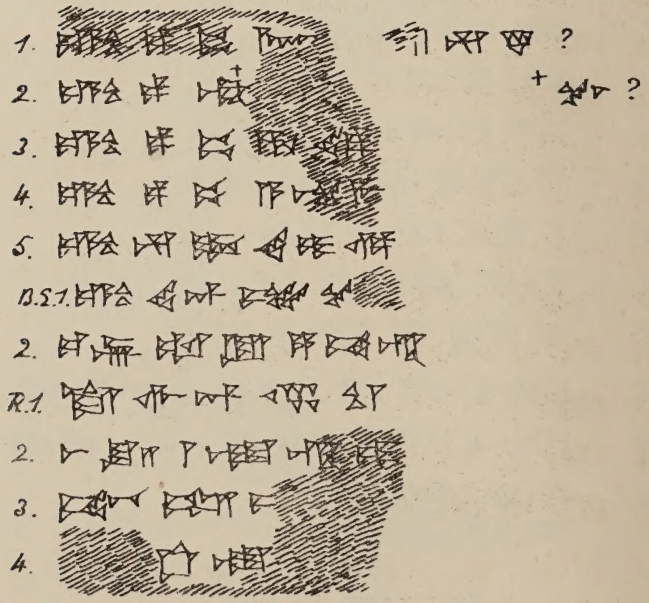
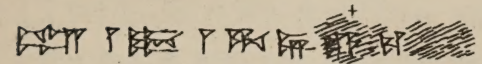
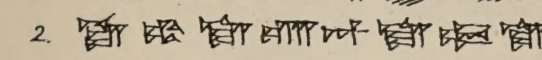
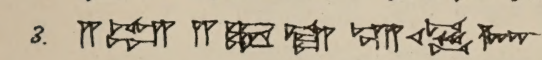
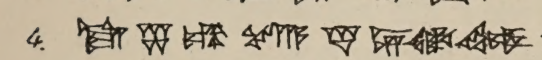
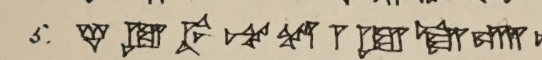
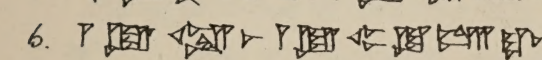
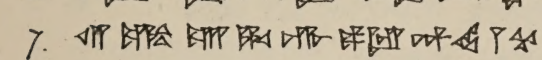
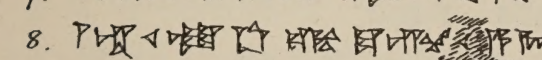
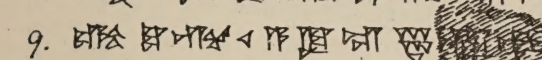
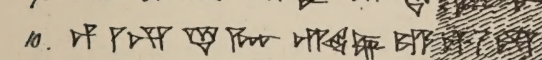
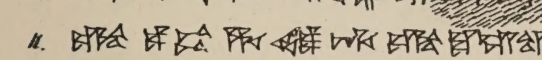
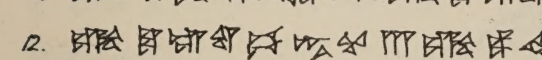
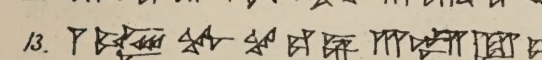
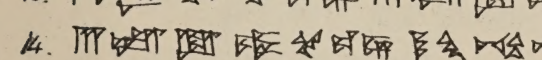
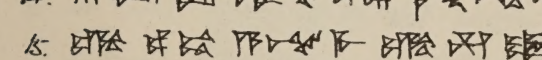
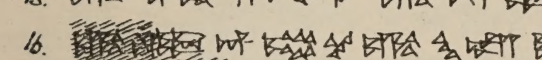
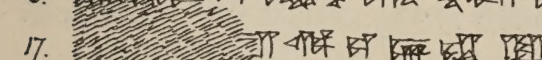
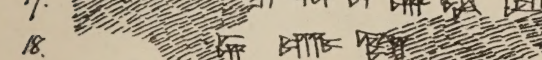


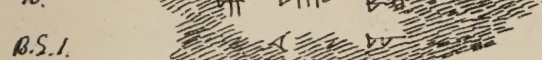
The reverse has traces of perhaps 8 lines.

No. 1009. [K. 1863.]



No. 1010. [81-2-4, 90.]

1. 
2. 
3. 
4. 
5. 
6. 
7. 
8. 
9. 
10. 
11. 
12. 
13. 
14. 
15. 
16. 
17. 
18. 

B.S.1. 

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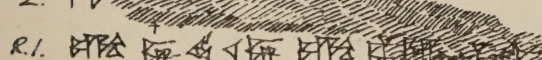
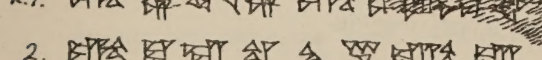
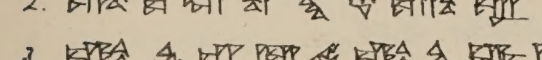
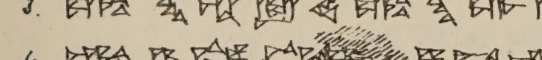
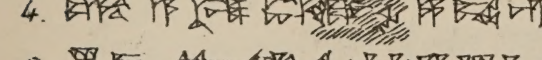
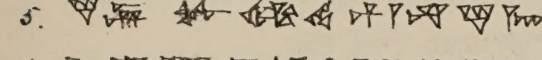
R.1. 

2. 
3. 
4. 
5. 
6. 

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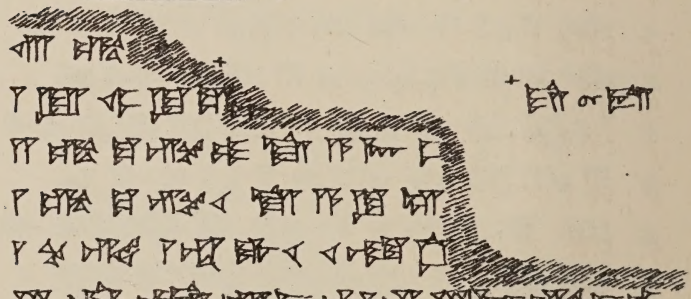
No. 1011. [81-2-4, 71.]



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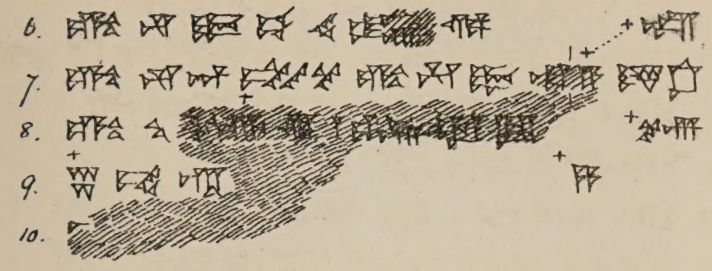
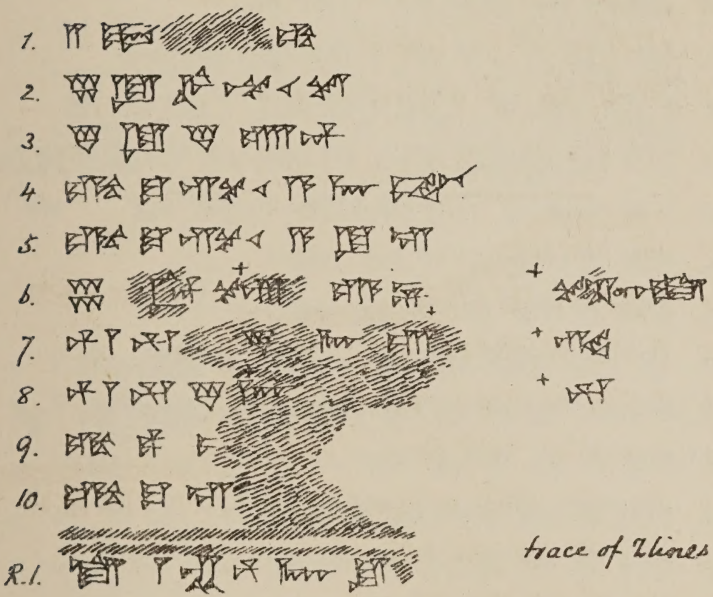
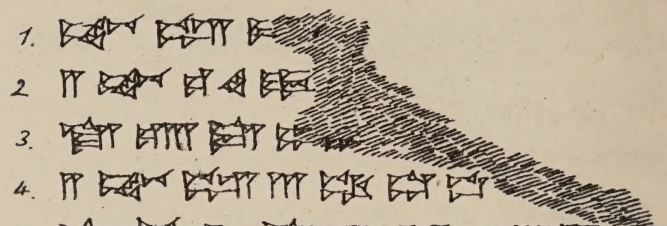


No. 1012. [81-2-4, 99.]



No. 1013. [82-5-22, 170.]



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No. 1014. [82-5-22, 39.]

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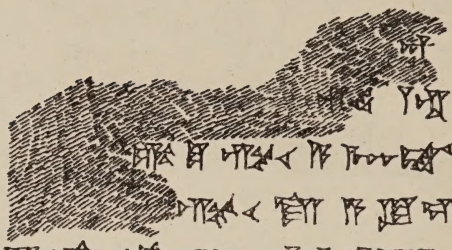
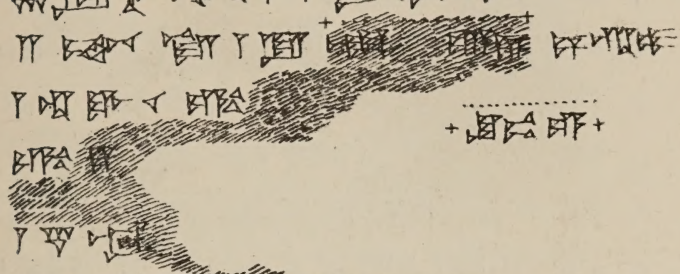
No. 1015. [Bu. 91-5-9, 158.]

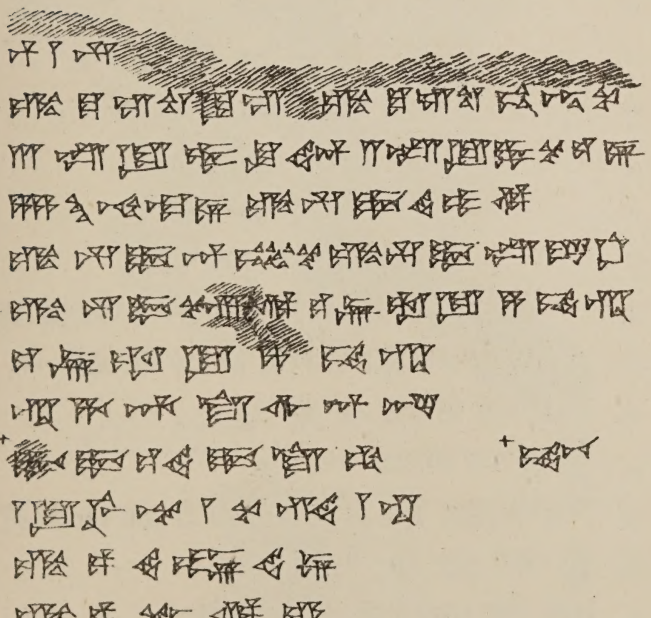


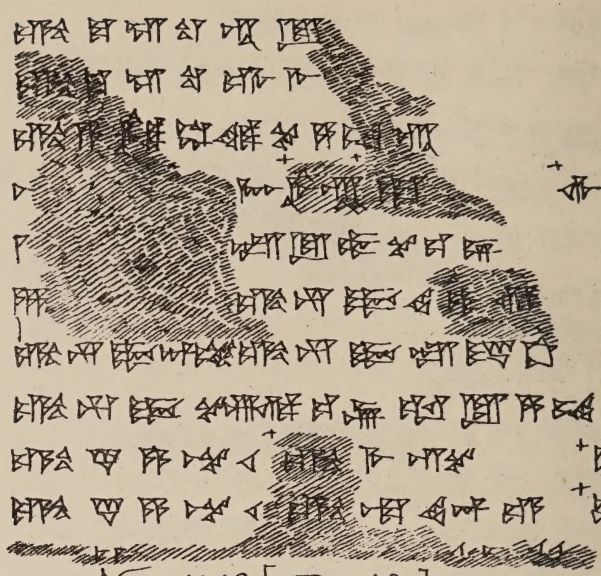
traces of more lines.

No. 1016. [80-7-19, 29.]

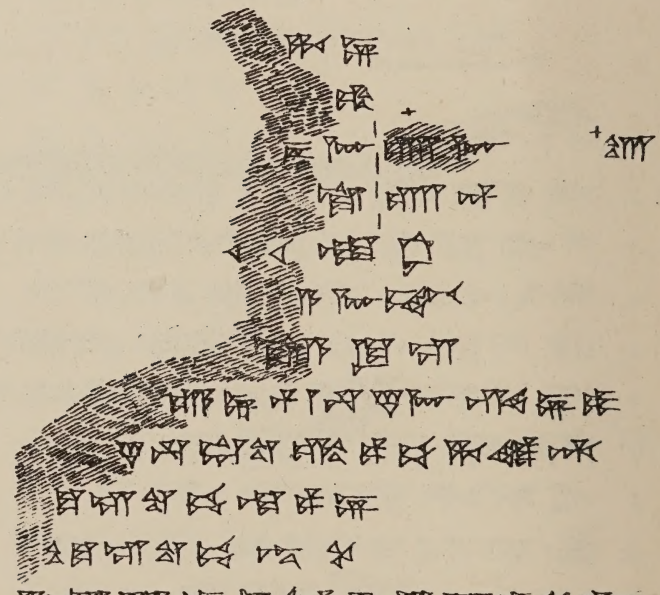


No. 1017. [K. 1114.]





No. 1018. [Rm. 52.]



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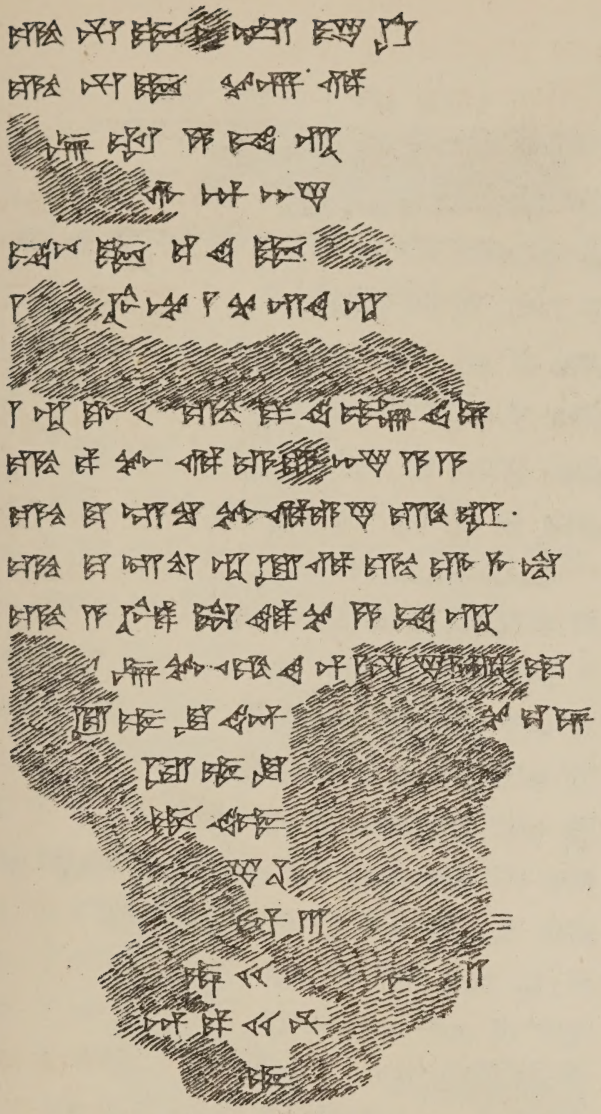
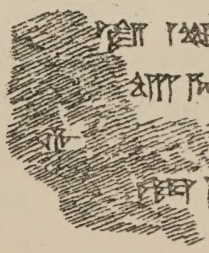


No. 1019. [Rm. 57.]



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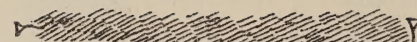
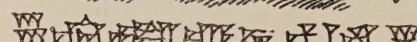
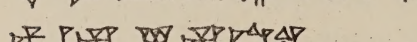
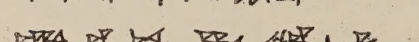
3. line 8.
4. line 9.

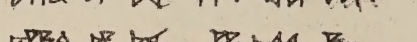
4.  " " 10.

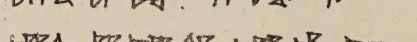
5. " " 11.

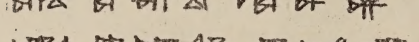
6.  " 12.

7.  " " 13

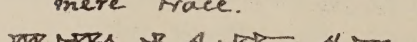
8.  " " 14.

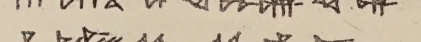
9.  " " 15.

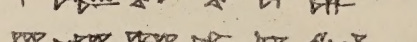
10.  " " 16

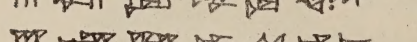
11. 

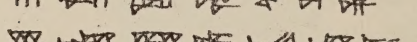
12. mere trace.

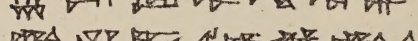
R. 1. 

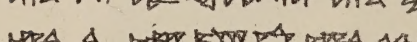
2. 

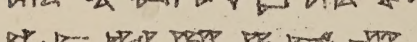
3. 

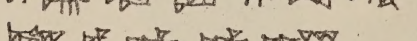
4. 

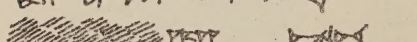
5. 

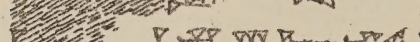
6. 

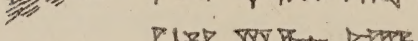
7. 

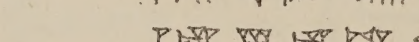
8. 

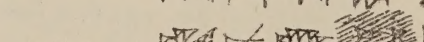
9. 

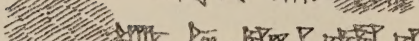
10. 

11. 

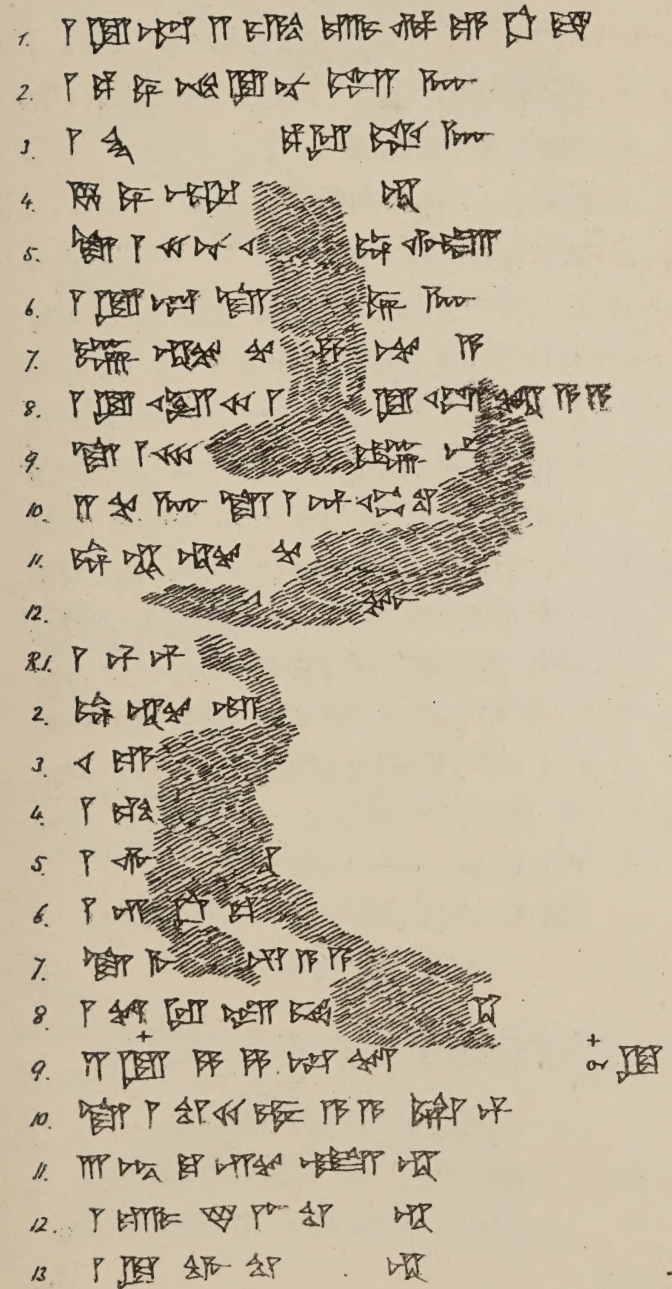
12. 

13. 

14. 

15. 

No. 1020. [Rm. 66.]



R.2 1.

No. 1021. [83-1-18, 80.]

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No. 1022. [81-2-4, 111.]

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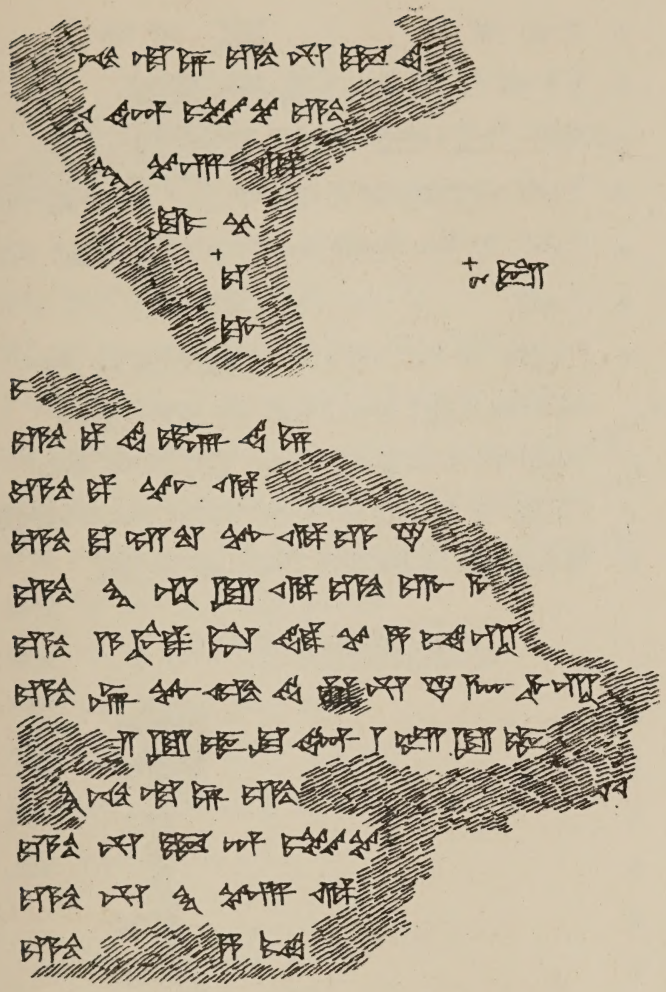

No. 1023. [K. 1291.]

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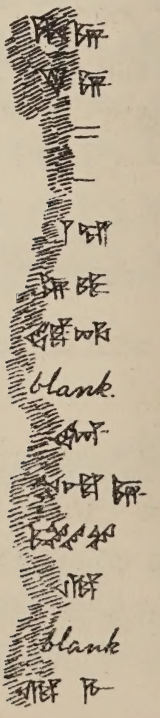
No. 1024. [K. 881.]



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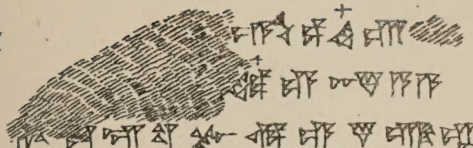

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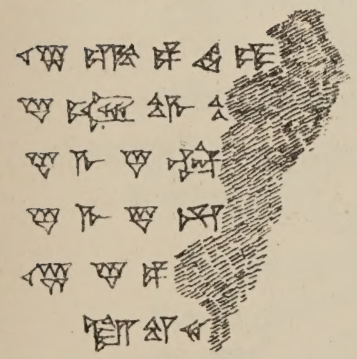
No. 1025. [K. 1006.]



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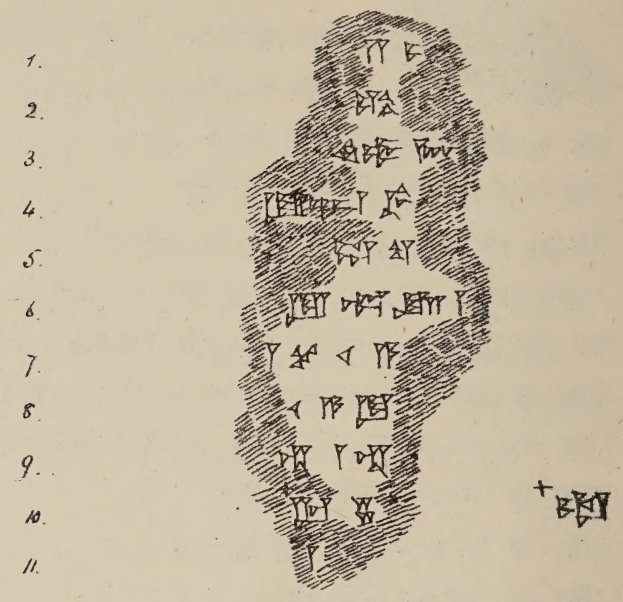
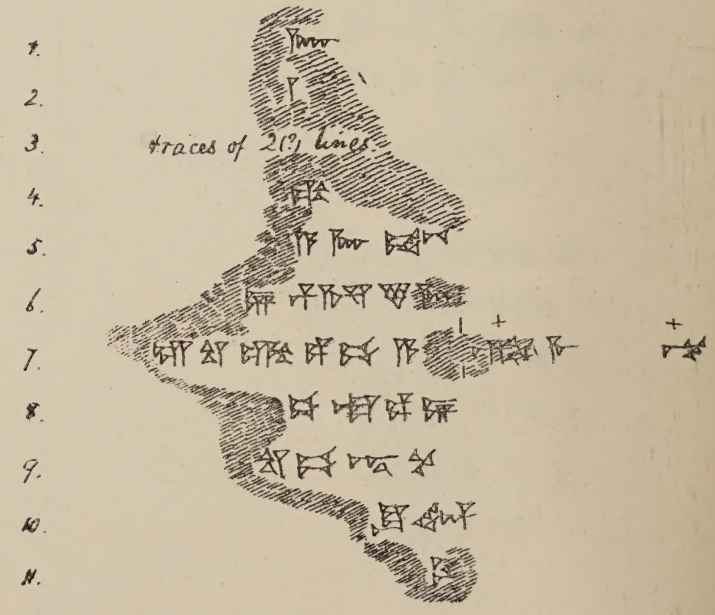
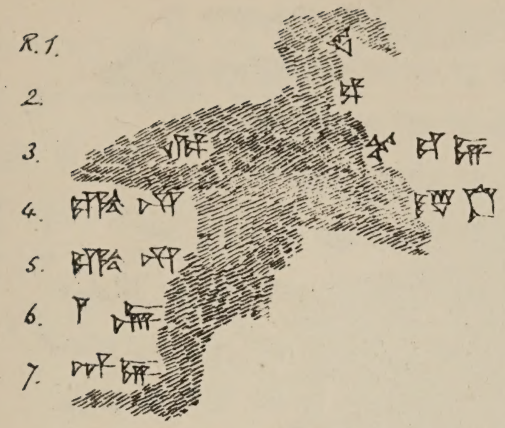
No. 1026 [83-1-18, 595.]

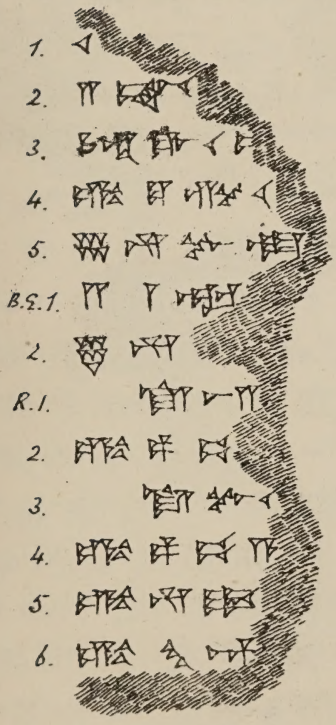


No. 1027 [K. 7341.]

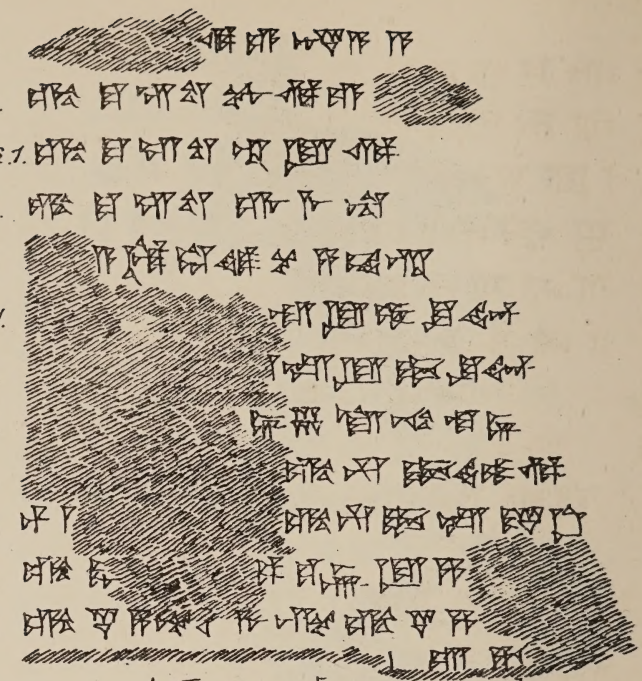




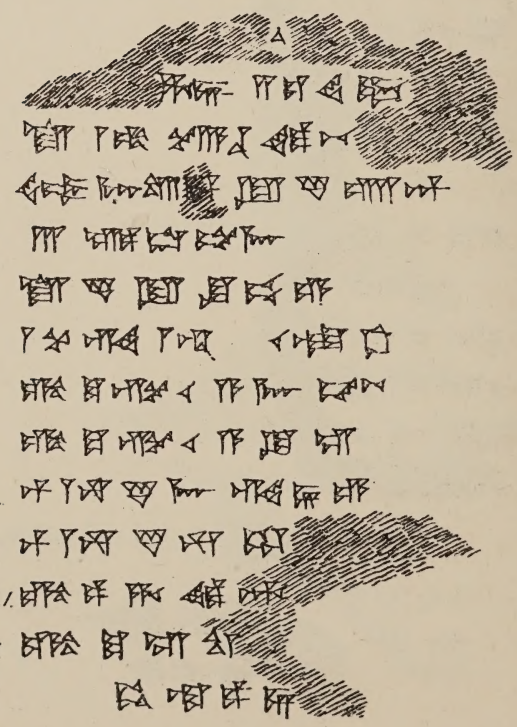
No. 1028. [K. 7524.]

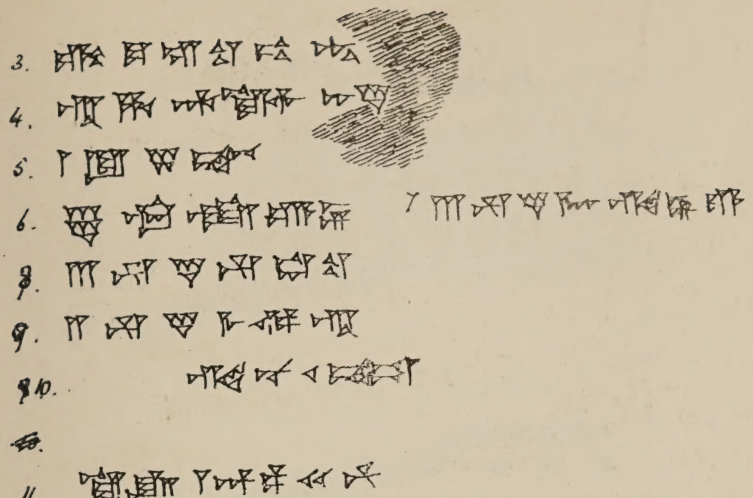


No. 1029. [83-1-18, 145.]

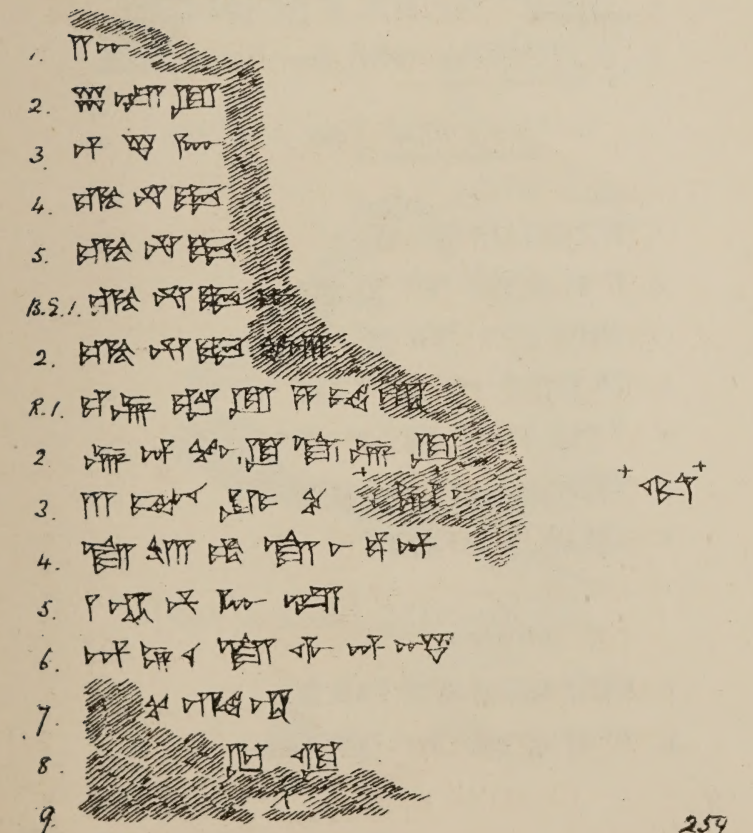


No. 1030. [83-1-18,327.]





No. 1031. [K. 1163]



No. 1032. [K. 11559.]

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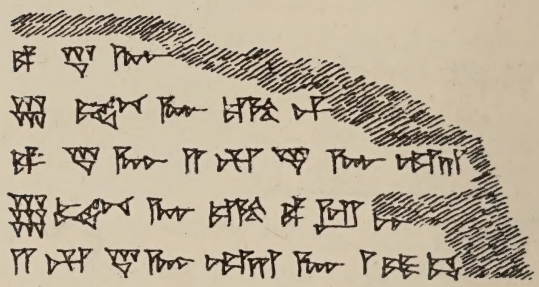
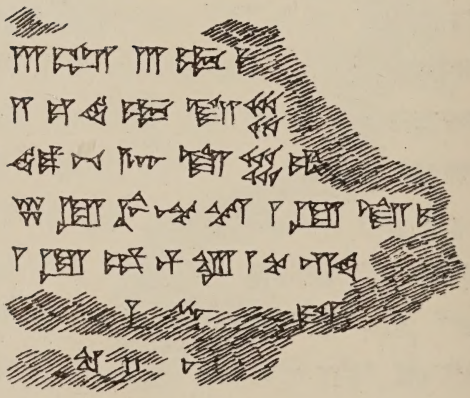
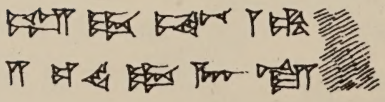
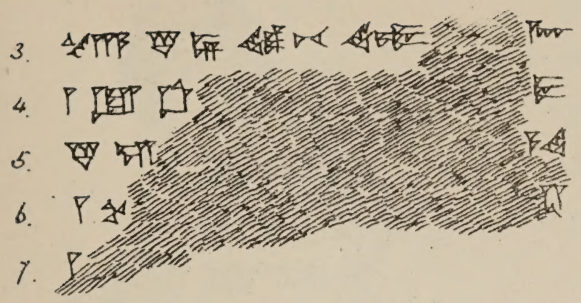
1. 

No. 1033. [83-1-18, 161.]

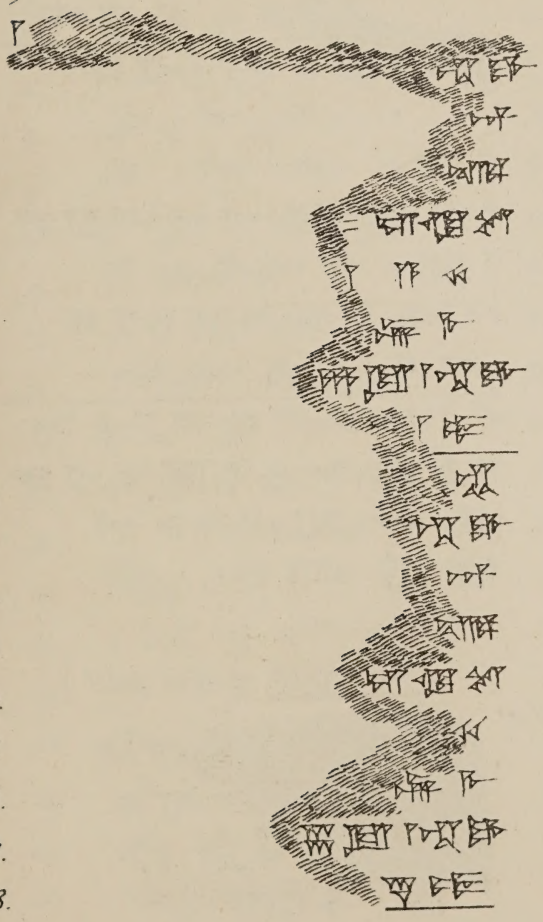
1. 

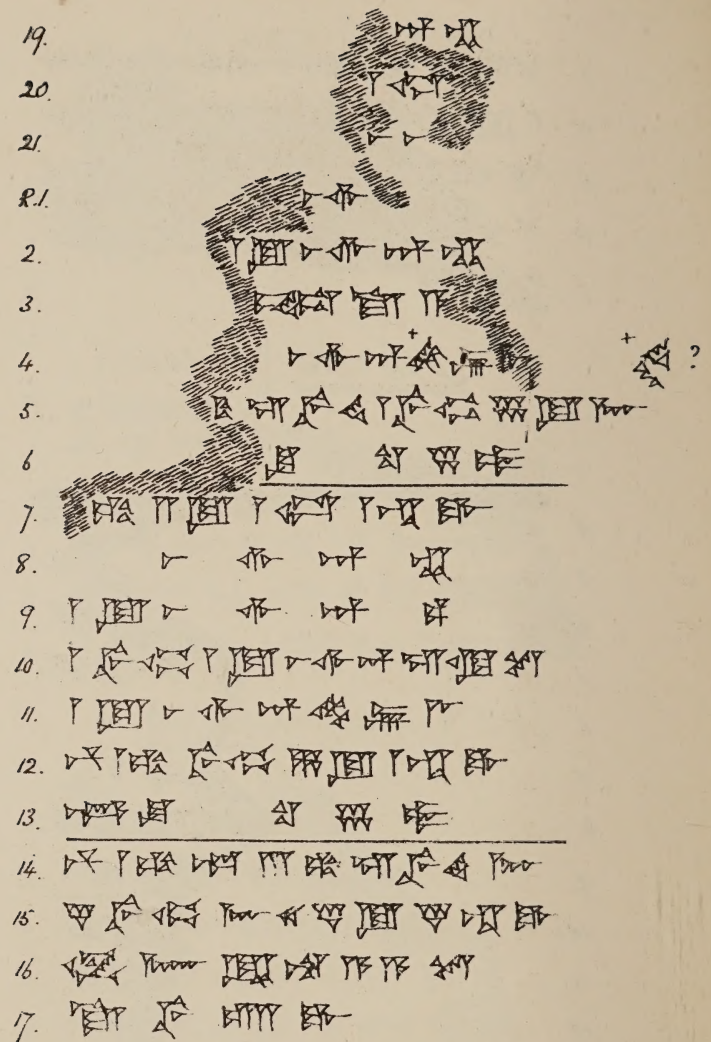
No. 1034. [81-2-4, 160.]

1. 

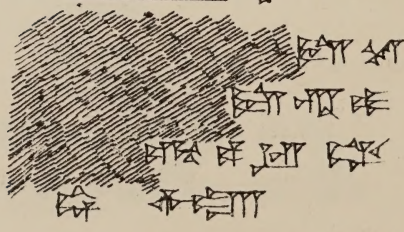


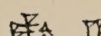
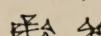
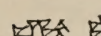
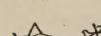
No. 1036. [K. 1450.]

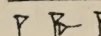
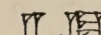
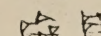
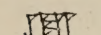




No. 7036. [Km. 619.]



5. 
6. 
7. 
8. 

9. 
10. 
11. 
12. 
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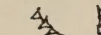
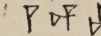
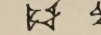
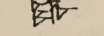
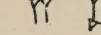
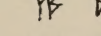
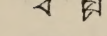
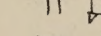
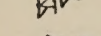
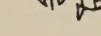
14. 

15. 
16. 
17. 
18. 
19. 
20. 
21. 
22. 
23. 
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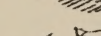
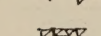
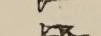
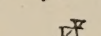
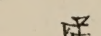
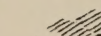
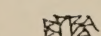
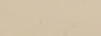
25. 
26. 
27. 
28. 
29. 
30. 
31. 
32. 

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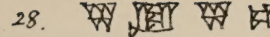
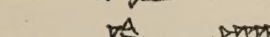
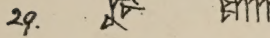
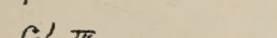
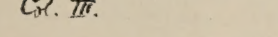
28. 

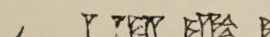
29. 

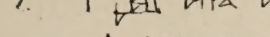
Col. III.

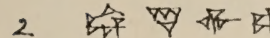
1. 

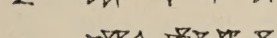
2. 

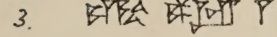
3. 

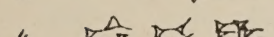
4. 

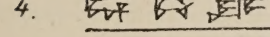
5. 

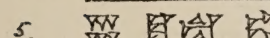
6. 

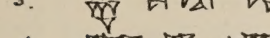
7. 

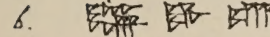
8. 

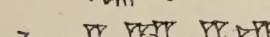
9. 

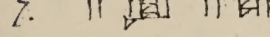
10. 

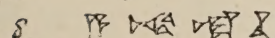
11. 

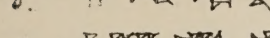
12. 

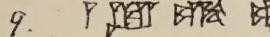
13. 

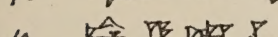
14. 

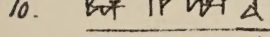
15. 

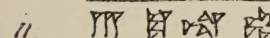
16. 

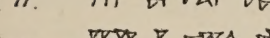
17. 

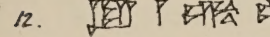
18. 

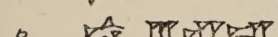
19. 

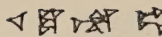
20. 

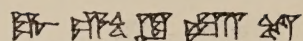
21. 

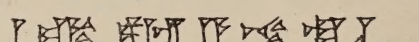
22. 

23. 

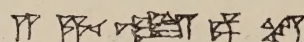
24. 

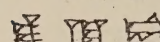
25. 

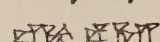
26. 

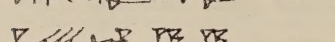
27. 

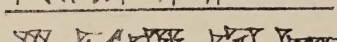
Col. IV.

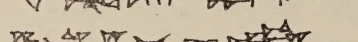
1. 

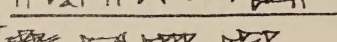
2. 

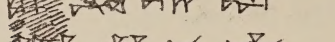
3. 

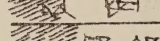
4. 

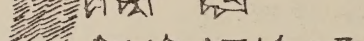
5. 

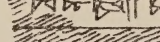
6. 

7. 

8. 

9. 

10. 

11. 

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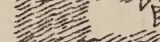
13.

14. 

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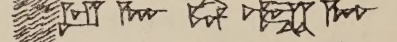
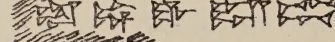
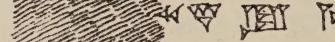
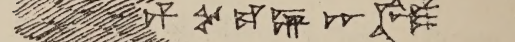
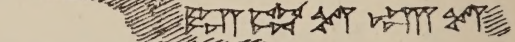
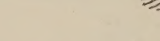
16. 

17. 

18. 

19. 

20. 

21. 

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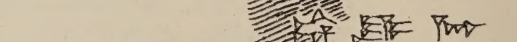
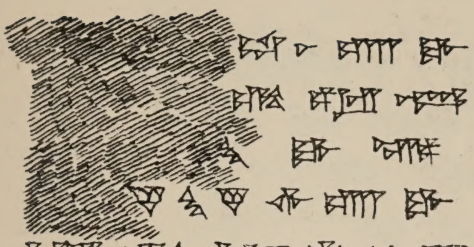
23. 

24. 

25.

26.

27.

28.

29.

Col. V.

1.

2.

3.

4.

5.

6. [1] [2] [2]

7.

The rest of Col. V and all Col. VI as far as preserved are blank.

[1] [2]

No. 1037. [Sm. 1613.]

1. trace.

2.

3.

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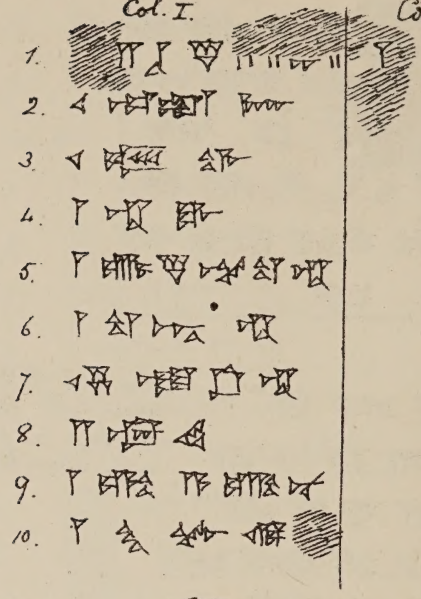
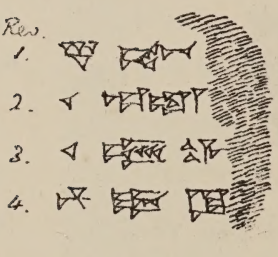
9.

No. 1038. [83-1-18, 592.]

Col. I. Col. II.

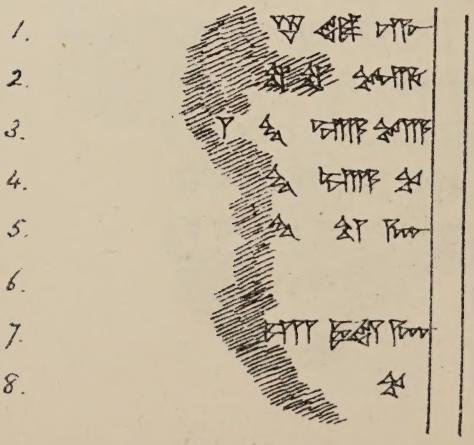


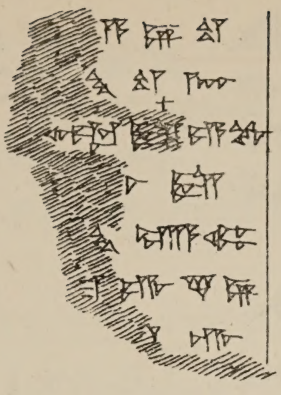
Rev.



No. 1039. [K. 8835.]

Col. I.



9. 

10.

11.

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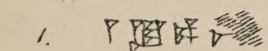
13.

14.

15.

Col. II.

1. 

2.

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17.

Col. III.

1.

2.
3.
4.
a long blank.
5.
6.

Col. IV, as far as preserved, is uninscribed.

No. 1040. [K. 919]

1.
2.
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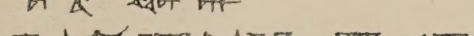
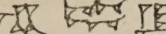
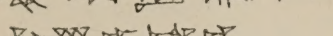
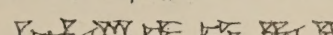
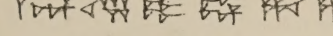
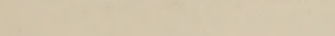
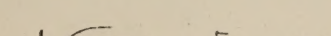
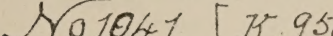
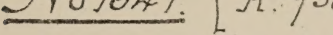
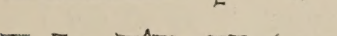
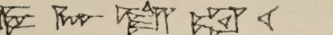
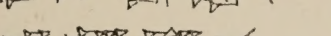
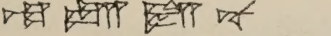
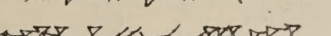
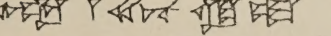
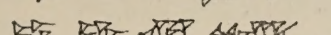
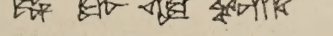
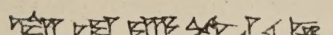
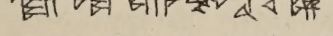
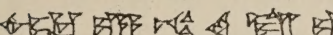
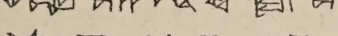
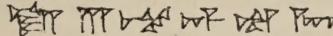
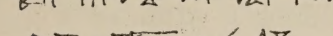
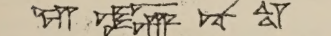
18.
B.S. 1.
R. 1.

2.
3. 
4. 
5. 

No 1041. [K. 958.]

1. 
2. 
3. 
4. 
5. 
6. 
7. 
8. 
9. 
10. 
11. 
12. 
13. 

Rev. 1. 
2. 
3. 
4. 
5. 
6. 
7. 
8. 

9. [illegible]

10. [illegible]

11. [illegible]

12. [illegible]

13. trace.

14. trace.

No. 1042. [K. 1298.]

1. [illegible]

2. [illegible]

3. [illegible]

4. [illegible]

5. [illegible]

6. [illegible]

7. [illegible]

8. [illegible]

9. [illegible]

10. [illegible]

11. [illegible]

12. [illegible]

13. [illegible]

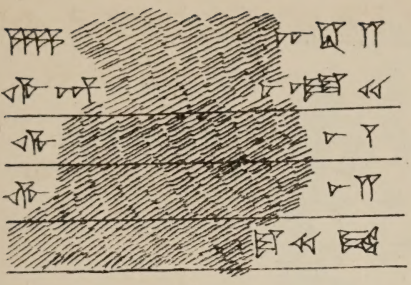
1. [illegible]

2. [illegible]

No. 1043. [K. 1462.]

1. [illegible]

2. [illegible]



3.
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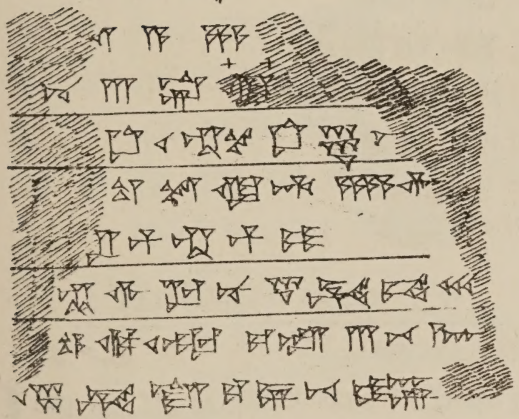
6.
7.
8. trace
9. "
10. "



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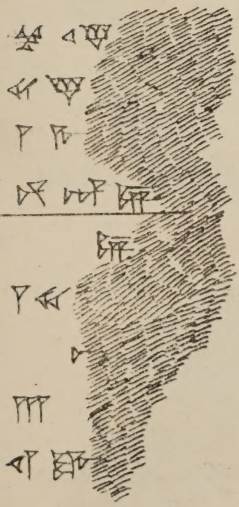
No. 1044. [K. 1416.]



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2.
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5.
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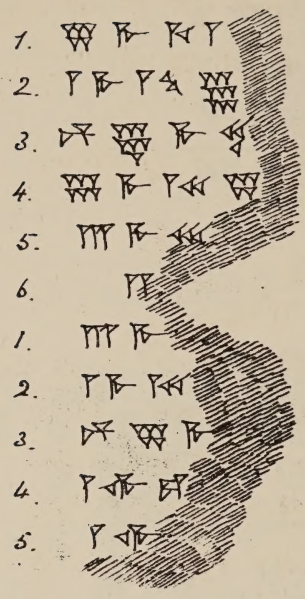
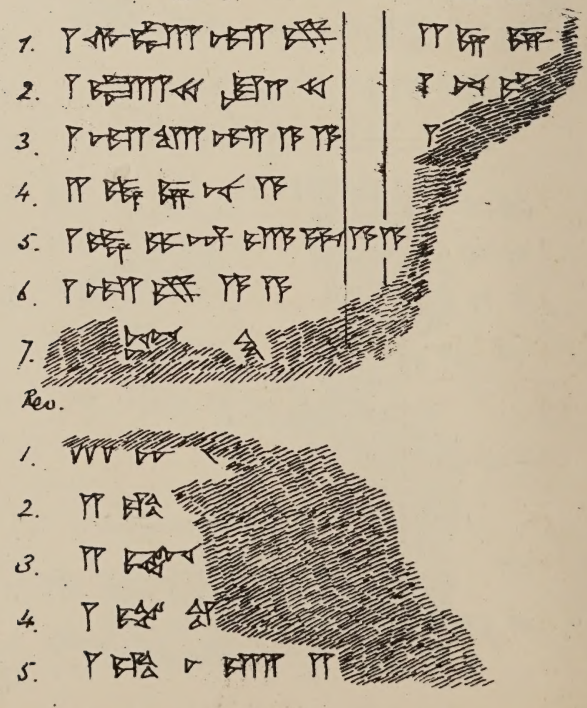
3.
4.

No. 1045. [K. 1506.]



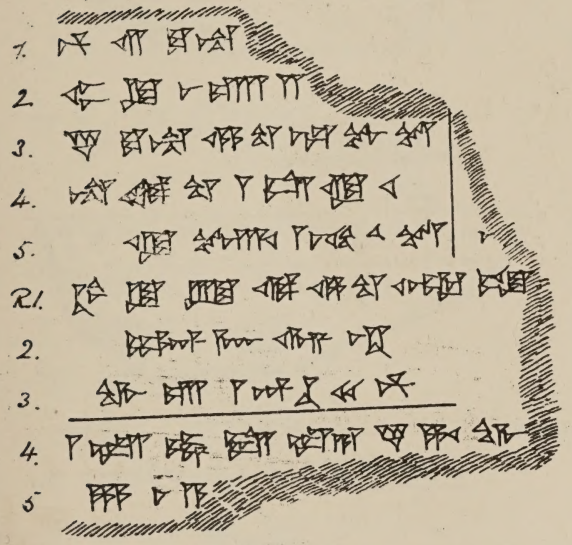
No. 1046. [K. 11955.]

Col. I. Col. II.

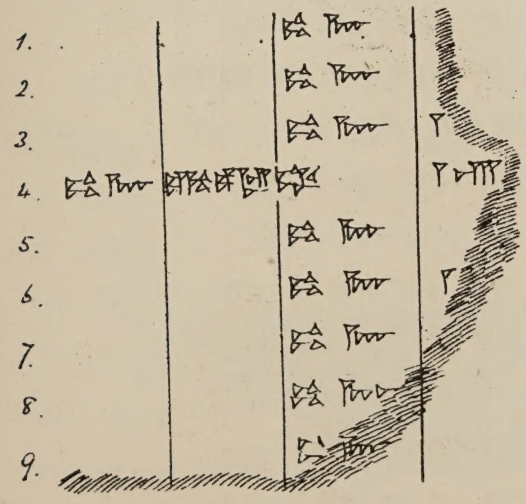


6.
7.

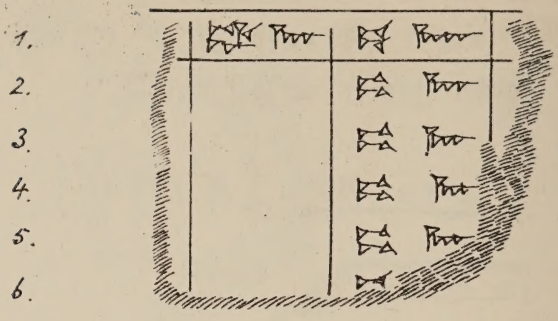
No. 1047. [K. 12966.]



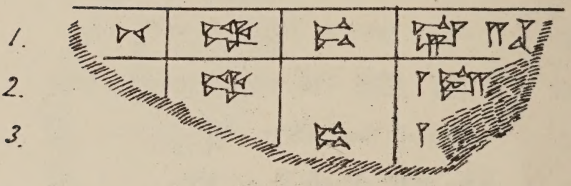
No. 1048. [K. 13581.]



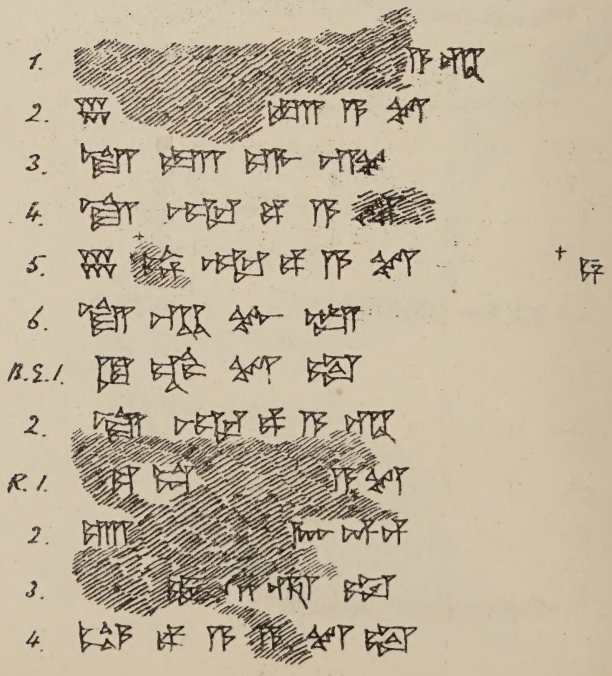
No. 1049. [H. 14123.]

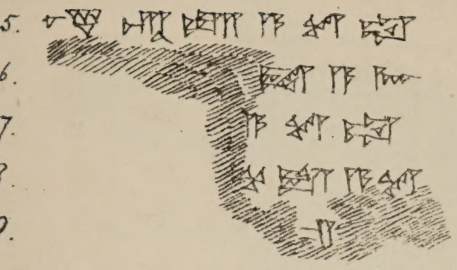


No. 1050. [H. 14124.]

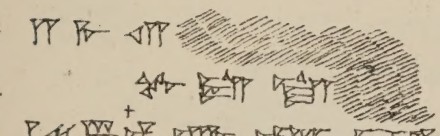


No. 1051. [Rm. 45.]



5. 
6.
7.
8.
9.

No. 1052. [Km 80.]

1. 
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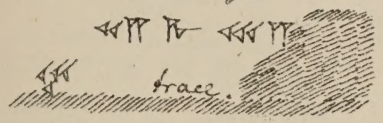
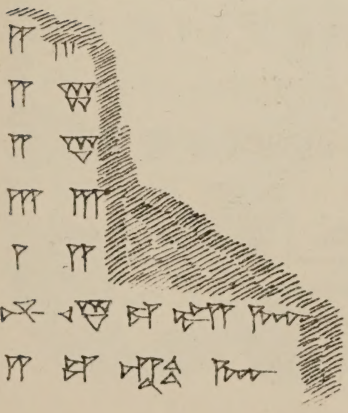
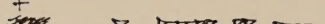
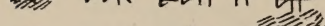
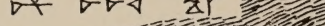
8.
9.
R.1.
2.  trace. possibly all erased.

No. 1053. [82-5-22, 533.]

1. 
2.
3.
4.
5.
6.
7.

8. 

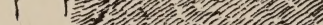
9. 

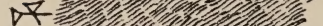
10. 

11.

12.

13.

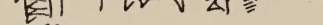
14. 

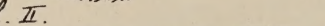
15. 

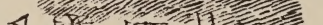
Col. II.

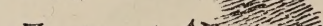
1.

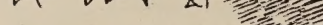
2.

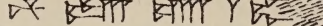
3. 

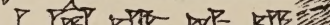
4. 

5. 

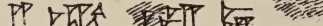
6. 

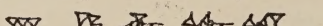
7. 

8. 

9. 

Rev. Col. III.

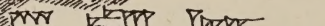
1. 

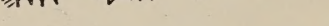
2. 

Col. IV.

1.

No. 1054. [Bu. 91-5-9, 60.]

1. 

2. 

3.
4.
5.

No. 7055. [K. 13057.]

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2.
3.

Blank line.

4
5

Rev.

1
2.
3.

No. 7056. [K. 5570.]

Probably was sealed.

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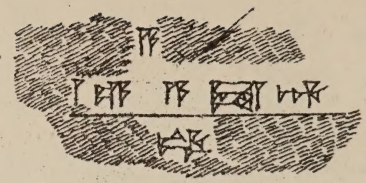

in very small script.

No. 1057. [83-1-18, 256.]

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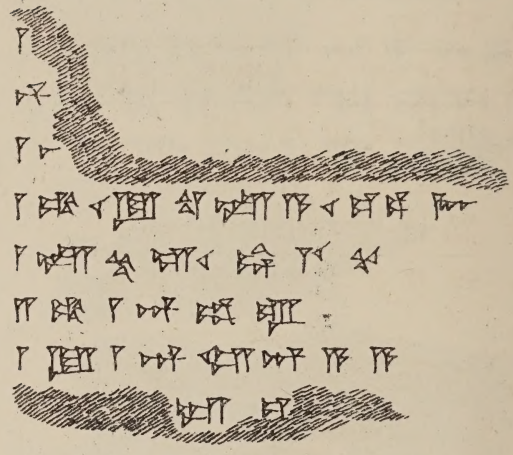

No. 1058. [K. 9053.]

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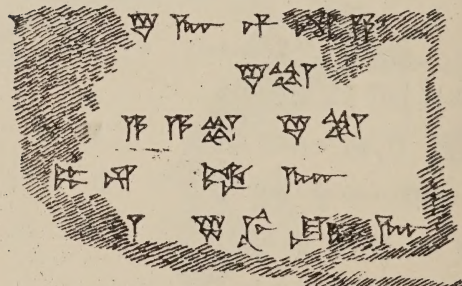

R. 1.
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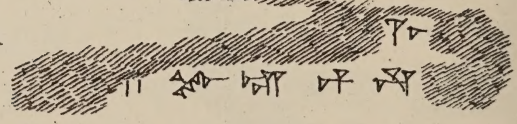

No. 1059. [81-2-4, 165.]

1.
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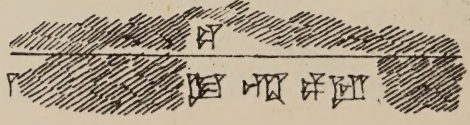
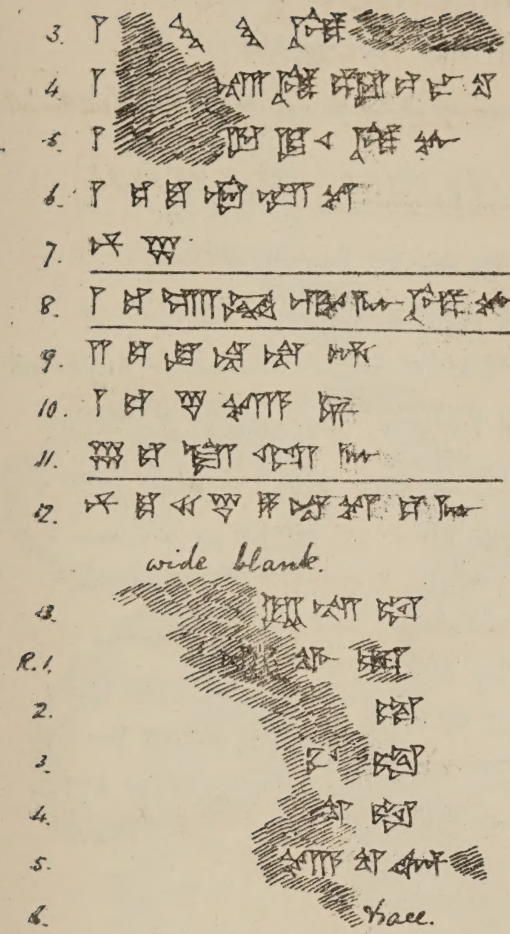


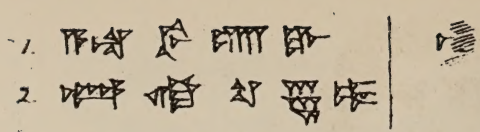


wide blank.

Race.

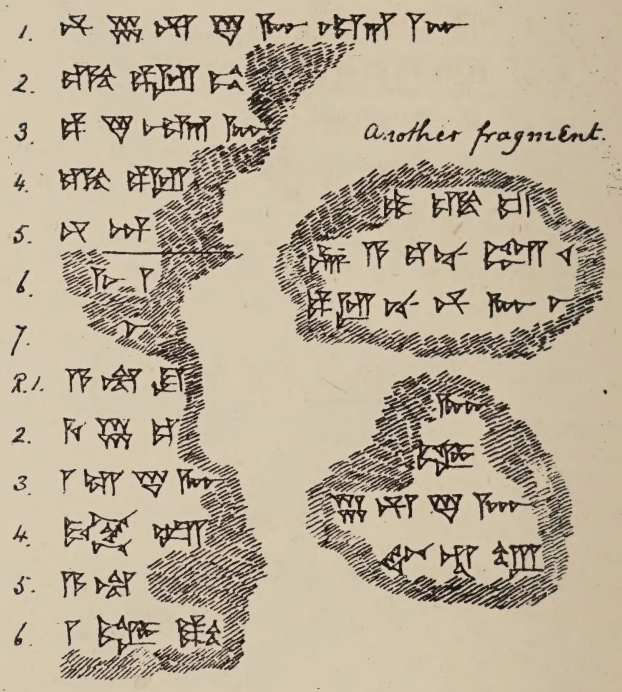
No. 1060 [81-2-4, 339.]

Col. I. Col. II.

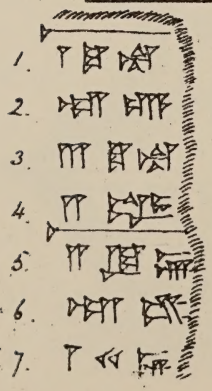


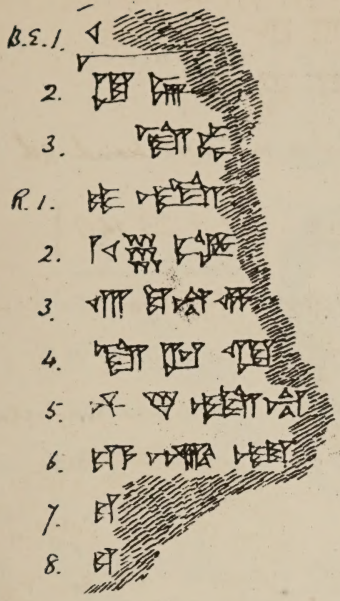
Trace of 2 lines in right hand col.

No. 1061. [82-3-23, 140.]

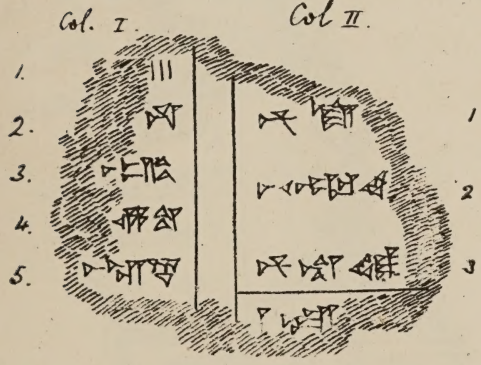


No. 1062. [K. 7385.]

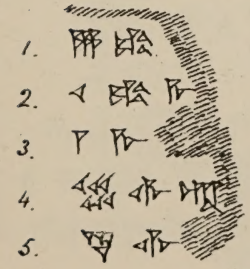




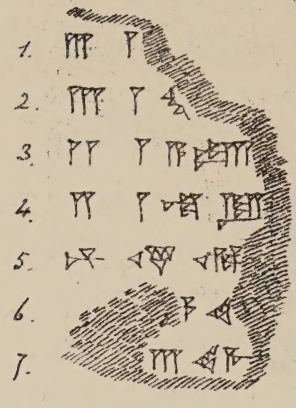
No. 1063. [K. 13220.]



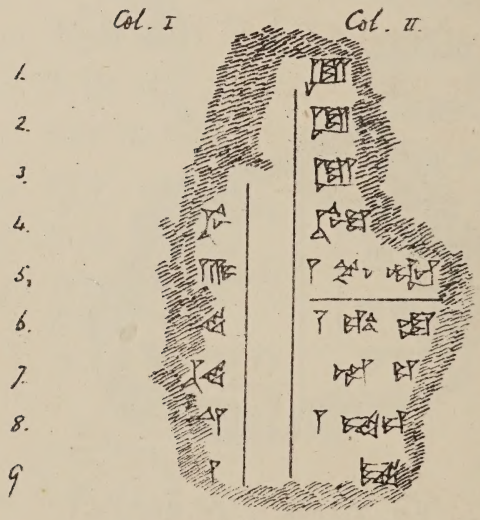
No. 1064. [K. 13224.]



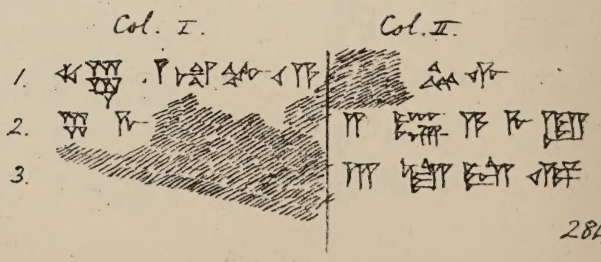
No. 1065. [K. 13206.]



No. 1066 [K. 13211.]



No. 1067. [K. 13097.]



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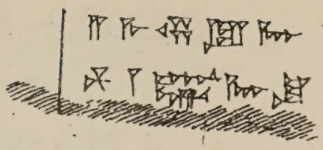
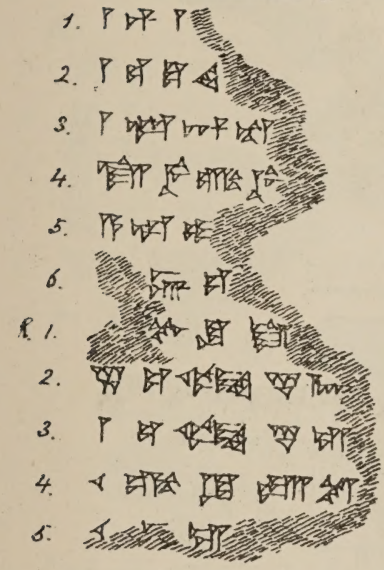
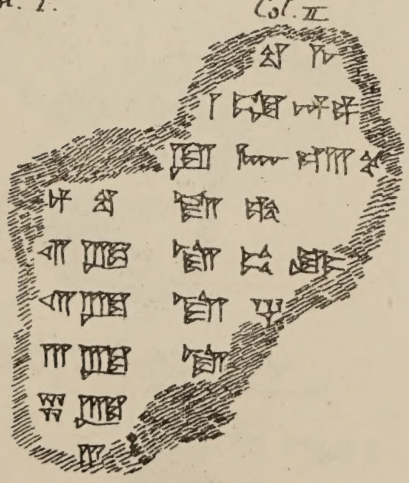


No. 1068. [K. 13091.]



No. 1069. [82-3-23, 63.]

Col. I. Col. II



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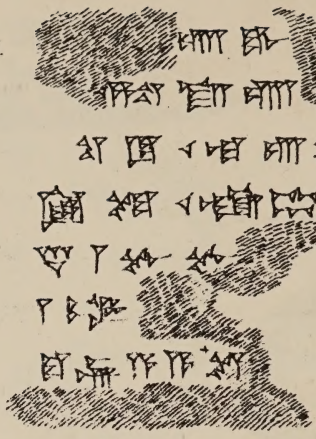

No. 1070. [K. 1953]

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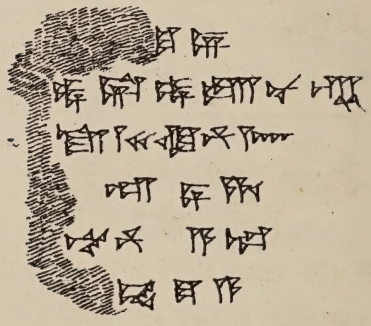

No. 1071. [K. 1319]

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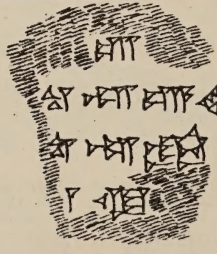

No. 1072. [K. 7328]

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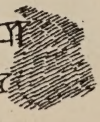
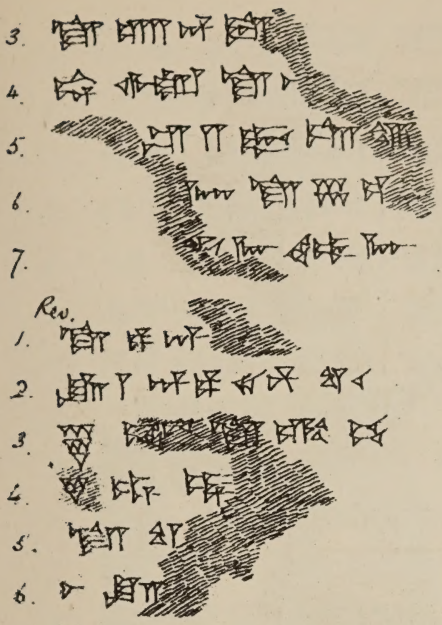
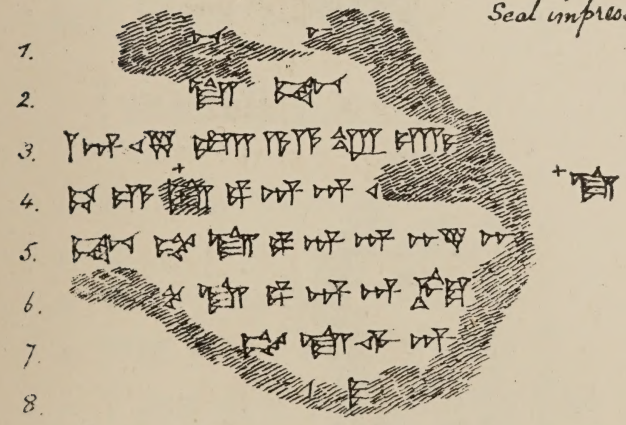


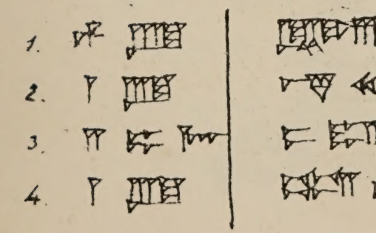


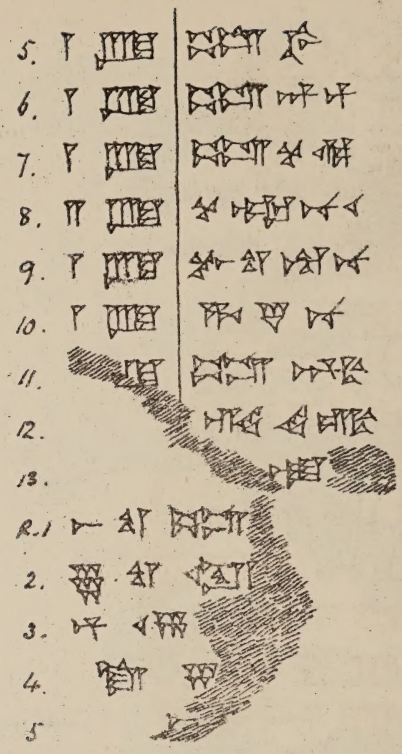
No. 1073. [K. 4797.]

Seal impression.

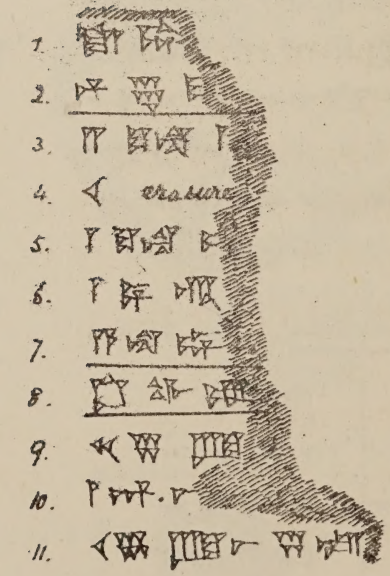


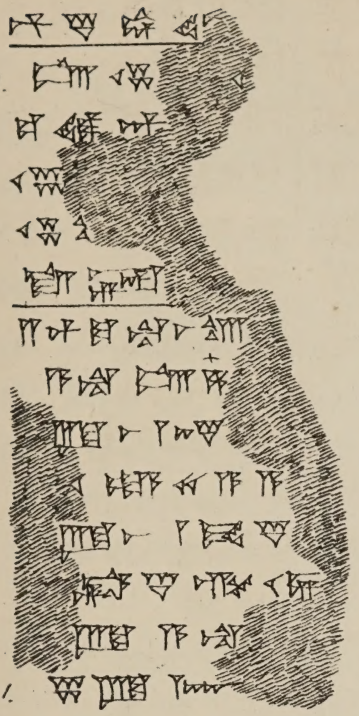
No. 1074. [Rm. 559.]





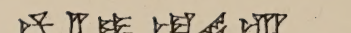
No. 1075. [K. 1493.]

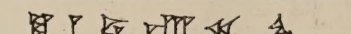


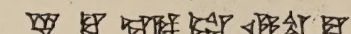


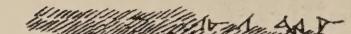
No. 1076. [K 1577.]

Col. I.

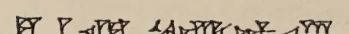
11. 

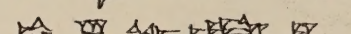
12. 

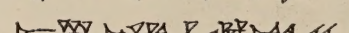
13. 

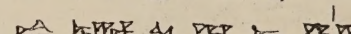
14. 

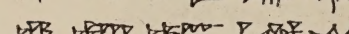
Col. II.

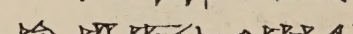
1. 

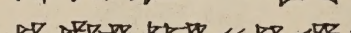
2. 

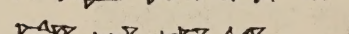
3. 

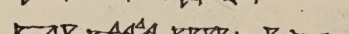
4. 

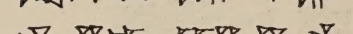
5. 

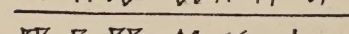
6. 

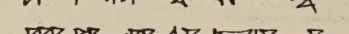
7. 

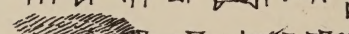
8. 

9. 

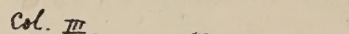
10. 

11. 

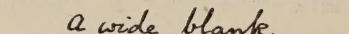
12. 

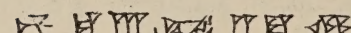
13. 

Col. III.

1. 

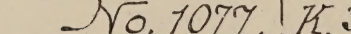
a wide blank.

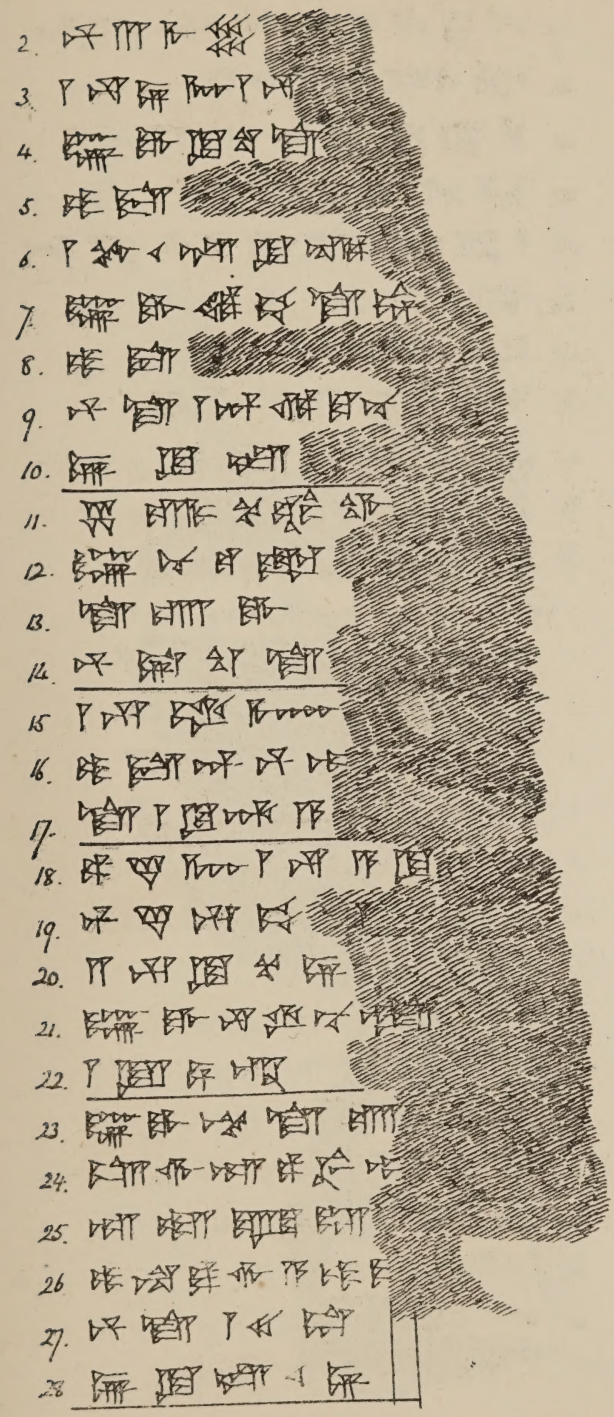
2. 

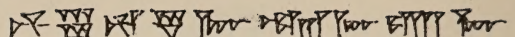
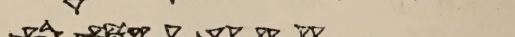
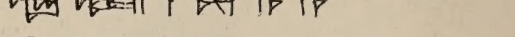
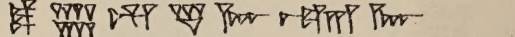
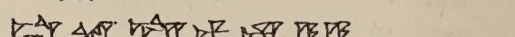
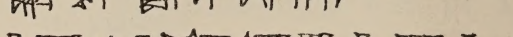
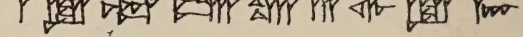
3. 

Col. IV is uninscribed.

No. 1077. [K. 3042.]

1. 



29. 
30. 
31. 
32. 
33. 
34. 
35. 
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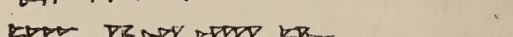
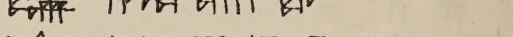
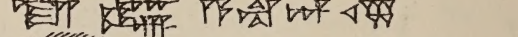
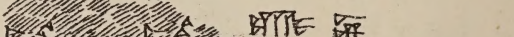
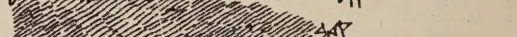
37. 
38. 
39. 

Col. II. beginning on level of I. 20.

1. 
2. 
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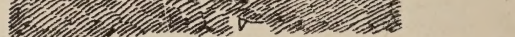
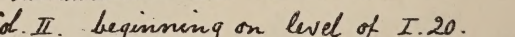
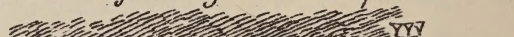
4. 
5. 
6. 
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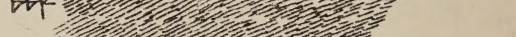
12. 
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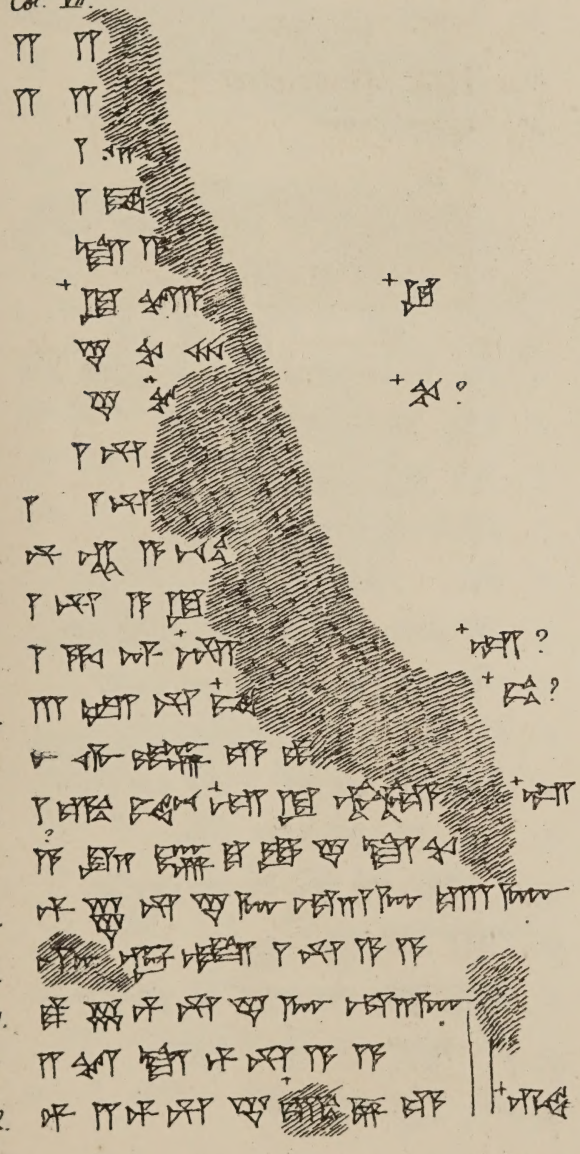
Col. VI

Col. VII



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Col. VIII.

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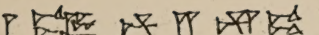
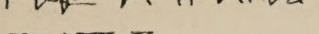
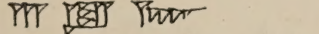
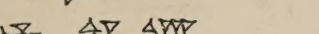
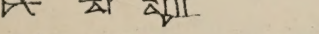
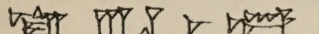
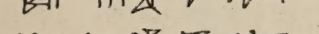
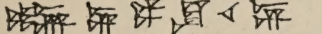
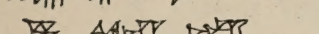
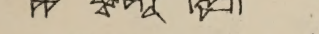
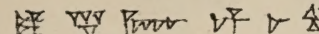
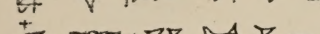
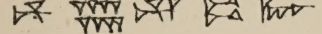
19. 
20. 
21. 
22. 
23. 
24. 
25. 
26. 
27. 
28. 
29. 
30. 
31. 
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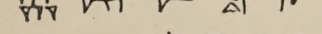
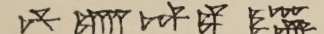
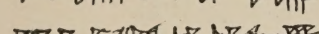
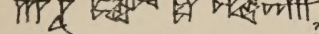
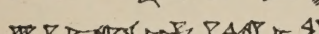
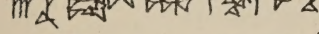
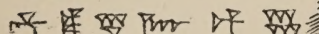
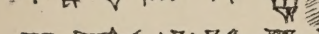
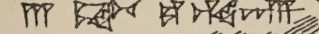
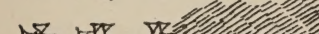
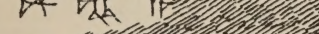
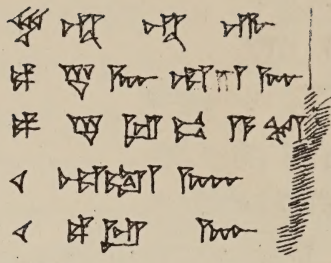
33. 
34. 
35. 
36. 

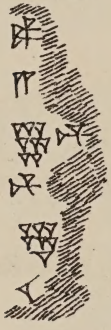
No. 1078. [H. 9761.]

1. 
2. 
3. 
4. 
5. 
6. 
7. 

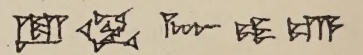
a wide uninscribed space.

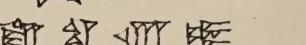
8. 

Rev. Col. III.

1. 

Col. IV.

1. 

2. 

No. 1079. [K. 9185.]

Col. I.

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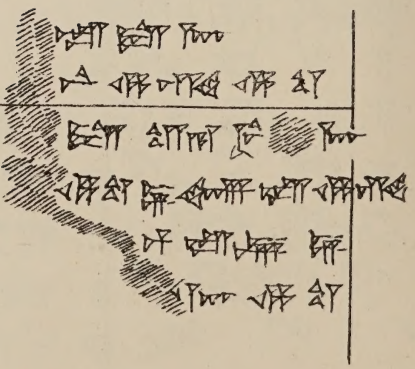
2. 

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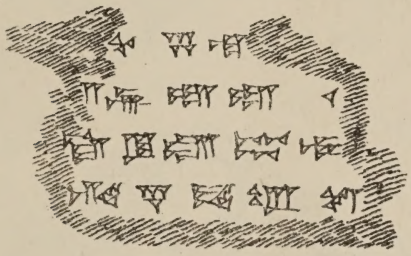
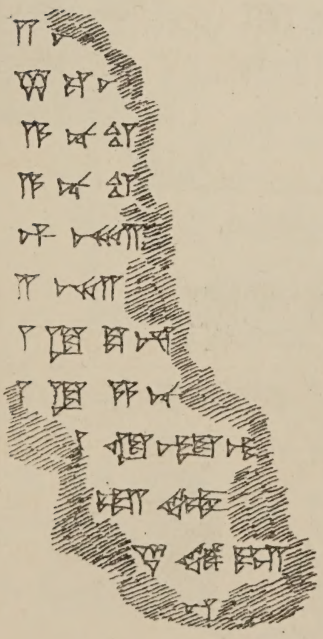
Gl. II

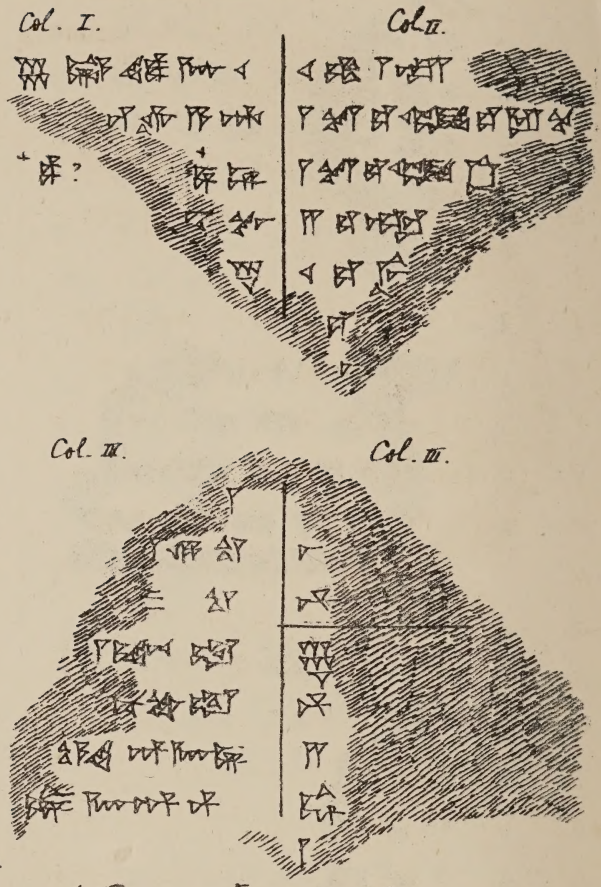
Rev.



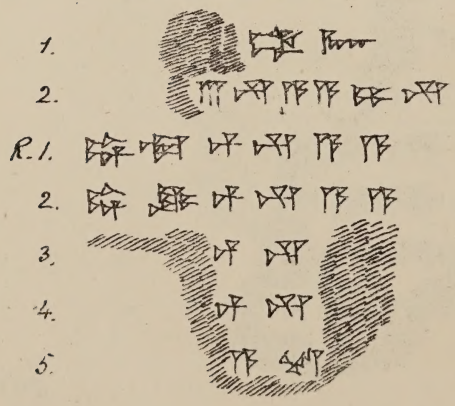
No. 1080. [K. 13159.]



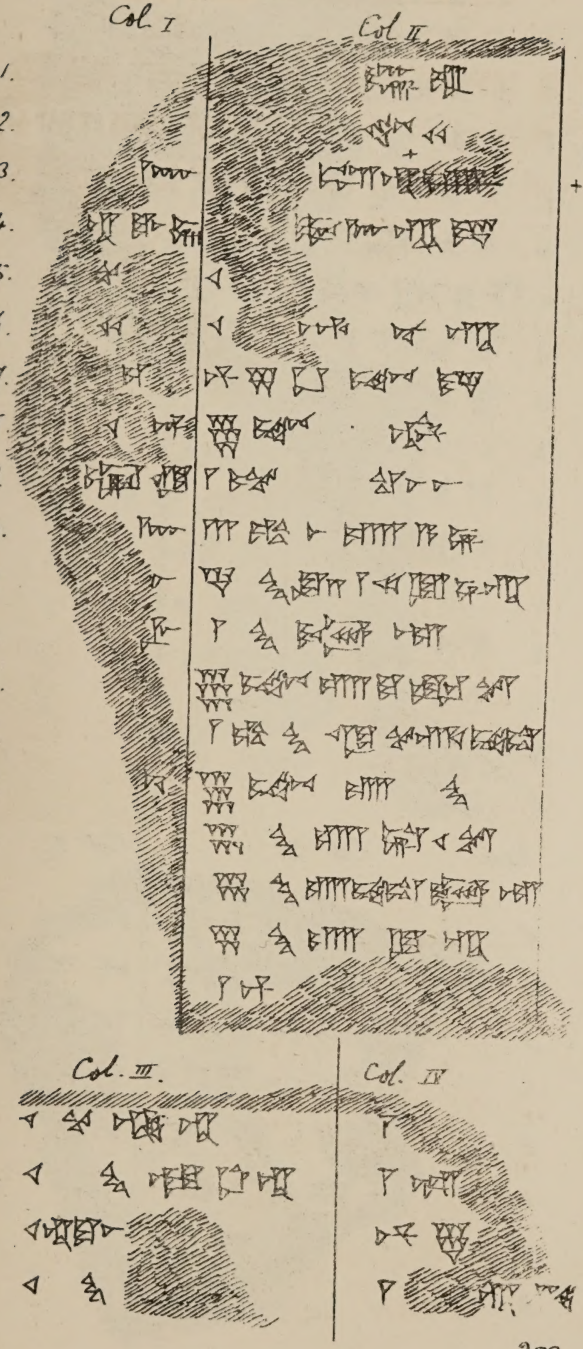
No. 1081. [H. 1306.]

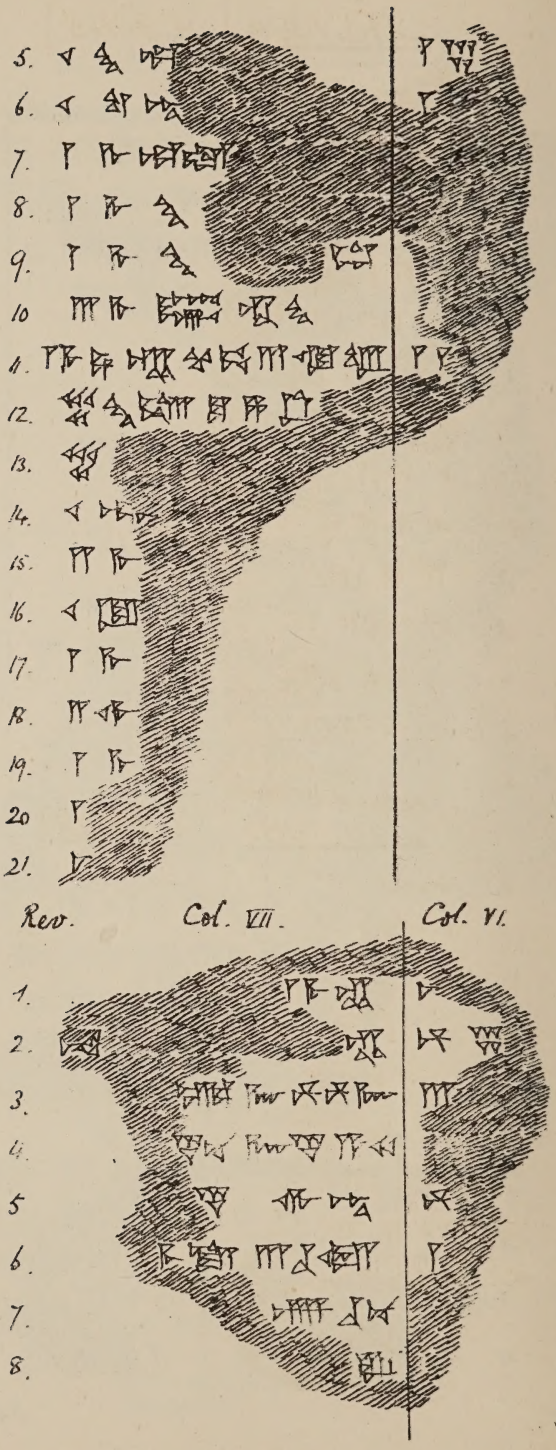


No. 1082. [H. 1937.]



No. 1083. [H. 2023.]

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Rev. Col. VII. Col. VI.
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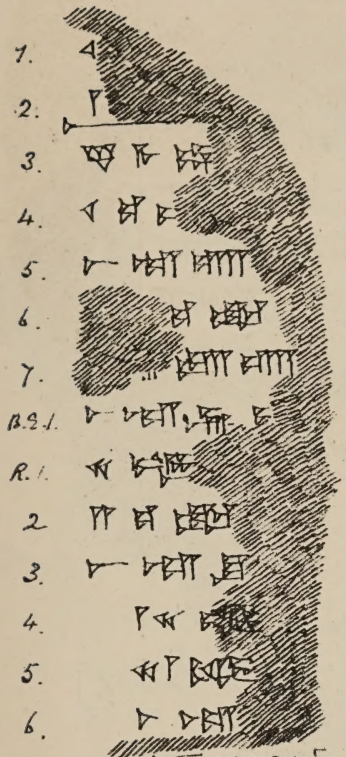
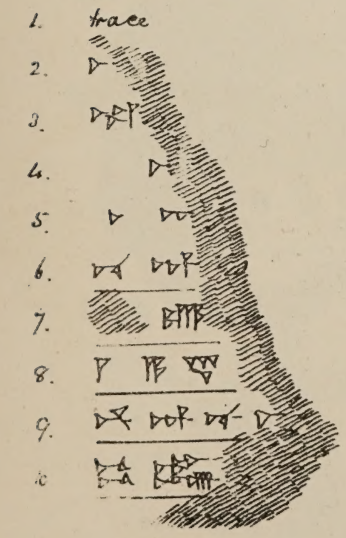
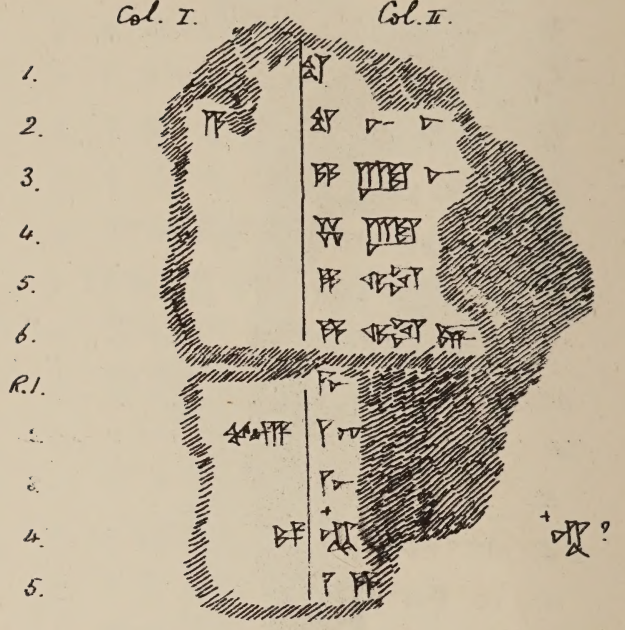
No. 1084. [H. 9045.]



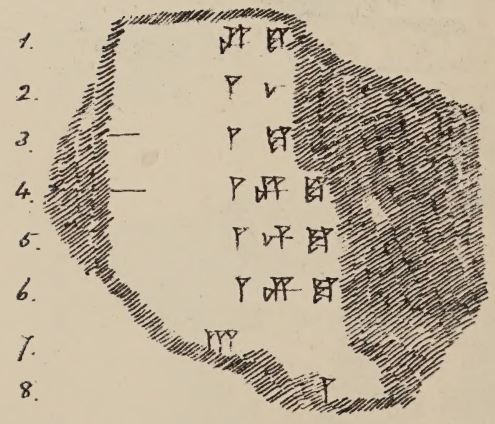
No. 1085. [H. 10578.]



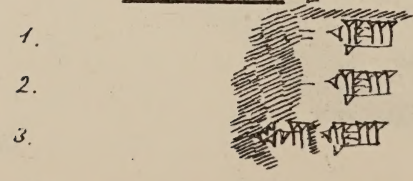
No. 1086. [K. 11471.]

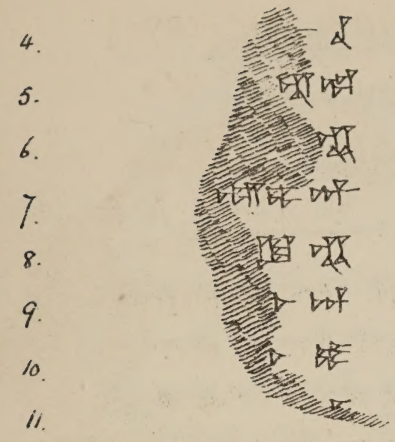


No. 1087. [K. 12057.]

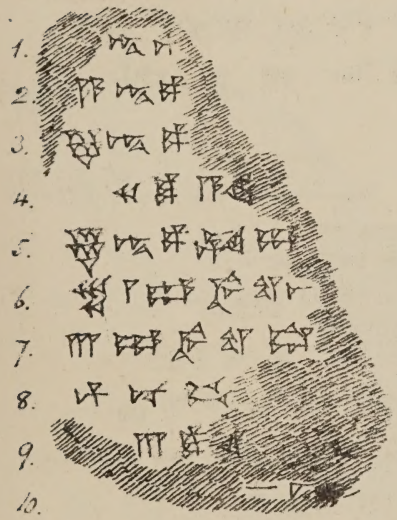


No. 1088. [Rm. 390.]

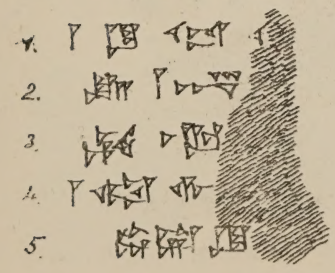


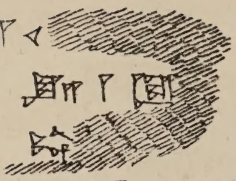


No. 7089. [83-1-18, 402.]



No. 7090. [81-2-4, 463.]



6. 
7.
8.

No. 1091. [K. 82.0]

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R. 1.

No. 1092. [K. 837.]

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B. 2. 1.
R. 1.
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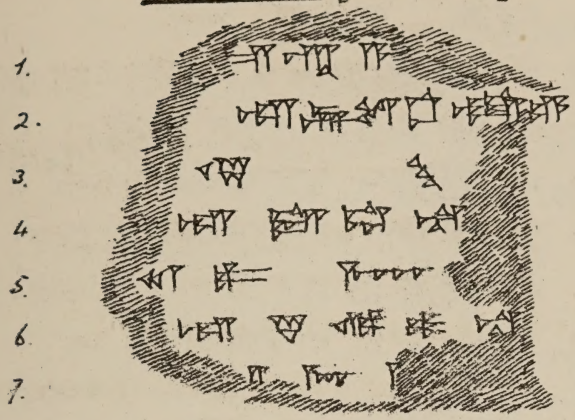
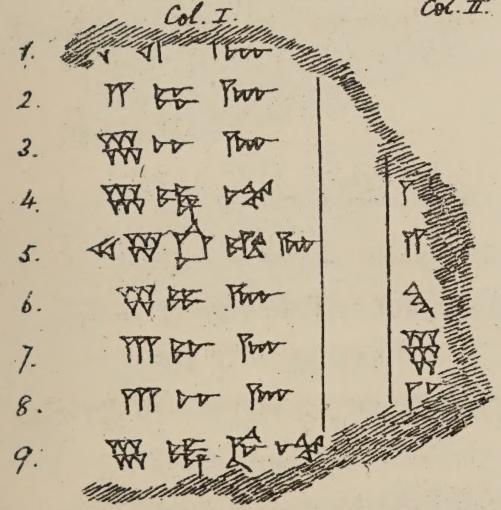
3.

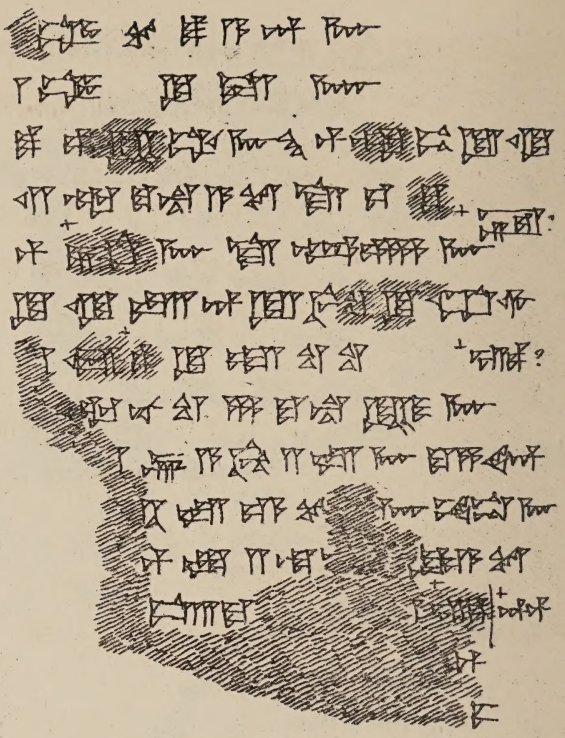
No. 1093 [K.12955]



No. 1094 [82-3-23, 117]



No. 1095. [83-1-18, 127]



No. 1096. [K. 4675.]

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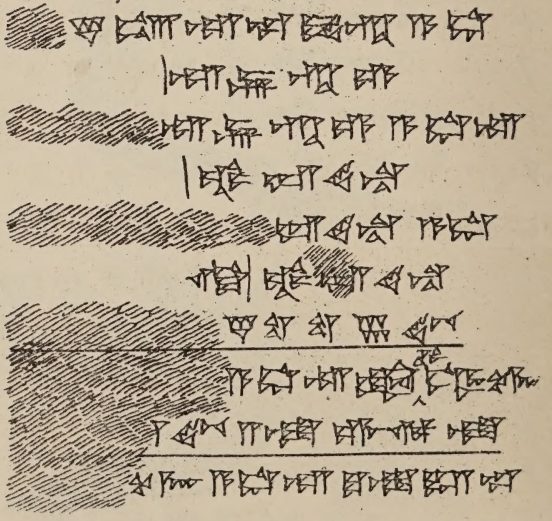
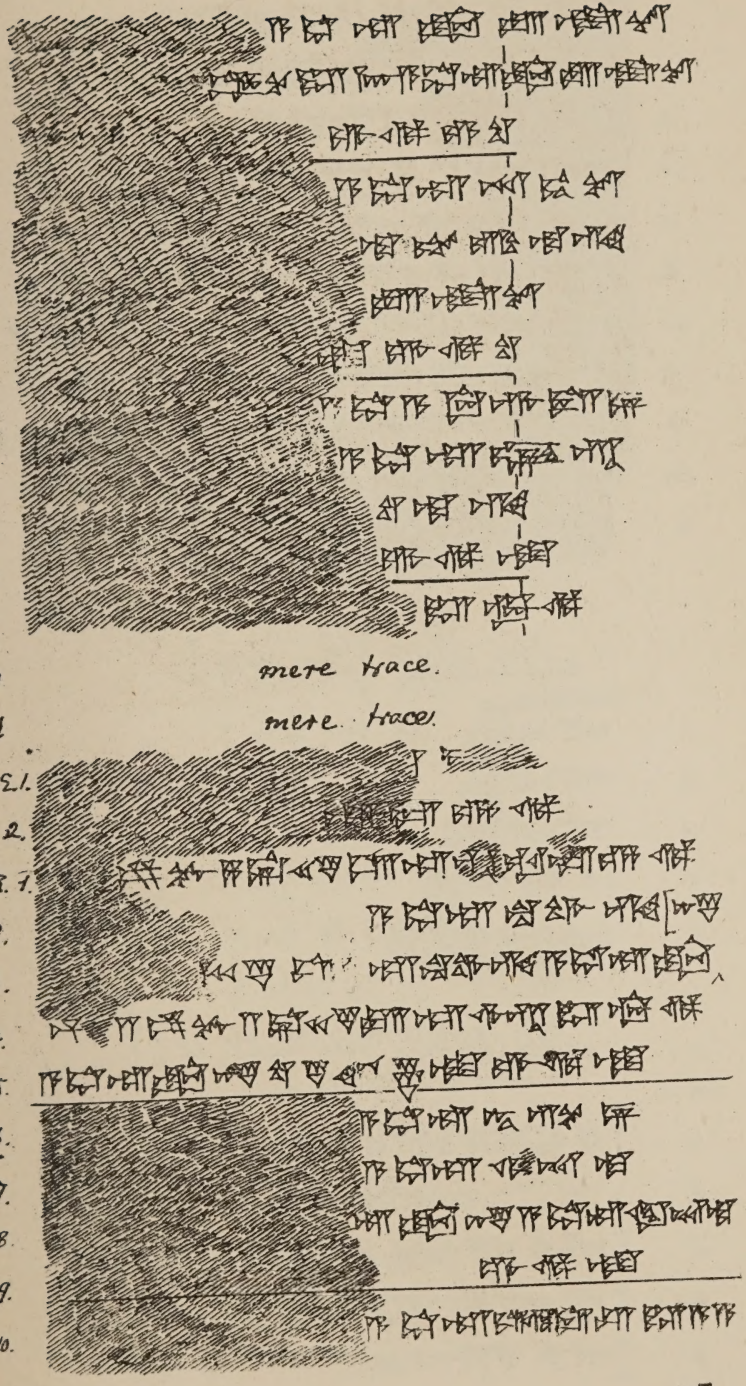
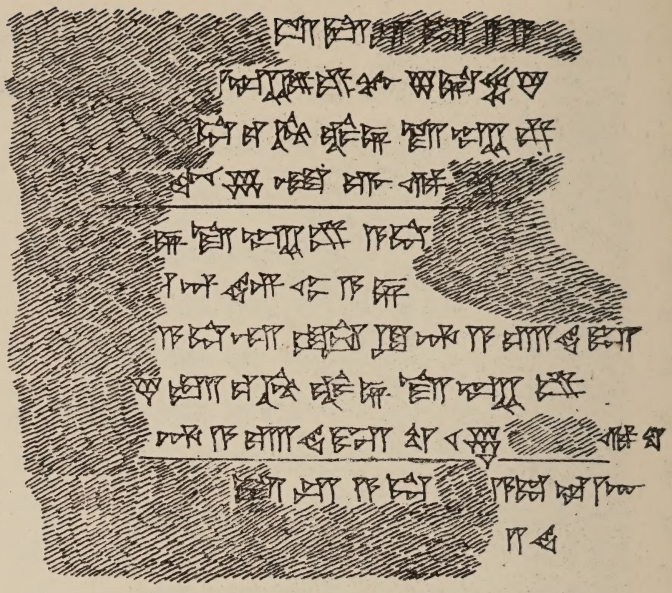


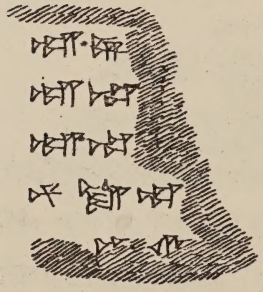


mere trace.

mere trace.

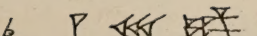
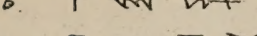
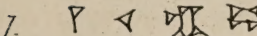


No. 1097. [Sm. 1475.]

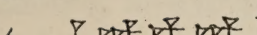
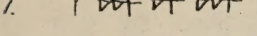
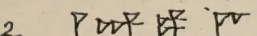
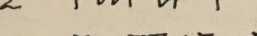
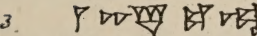
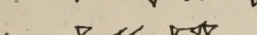
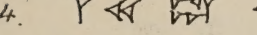
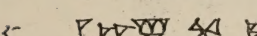
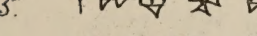
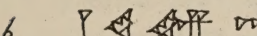


No. 1098. [82-5-22, 121.]

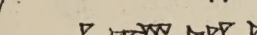
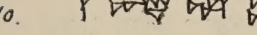
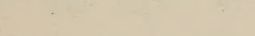
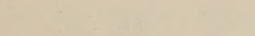
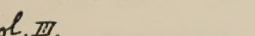
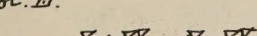
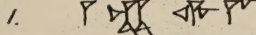
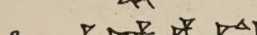
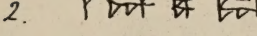
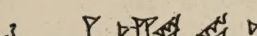
Col. I.

6. 
7. 
8. 

Col. II.

1. 
2. 
3. 
4. 
5. 
6. 
7. 
8. 
9. 
10. 

Col. III.

1. 
2. 
3. 
4. 
5. 
6. 
7. 
8. 
9. 
10. 

Col. IV.

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No. 1099. [K. 833.]

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R. 1.

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No. 1100. [K. 1295.]

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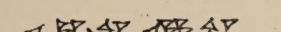
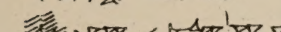
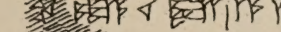
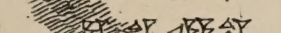
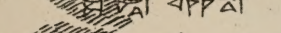
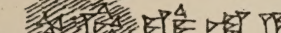
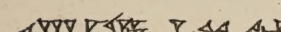
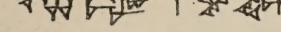
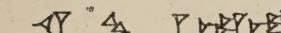
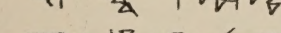
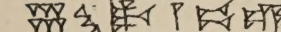
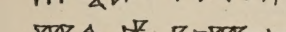
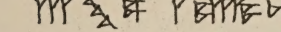
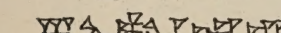
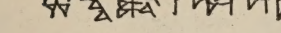
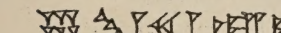
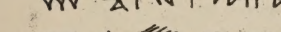
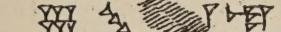
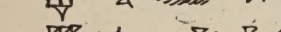
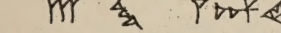
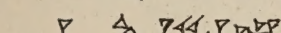
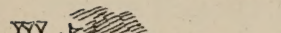
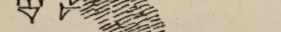
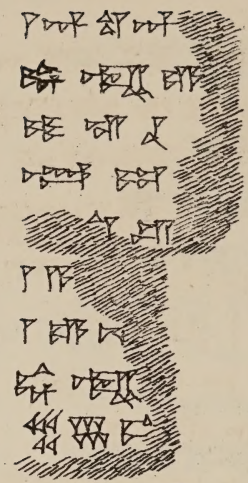
6. 
6. 
7. 
R. 1. 
2. 
3. 

No. 1101. [K. 1458 + K. 1532.]

1. 
2. 
3. 
4. 
5. 
6. 
7. 
8. 
9. 
10. 
11. 
12. 
13. 
14. 
1 

No. 1102. [K. 1868.]

1. 
2. 

3. 

4.

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R 1.

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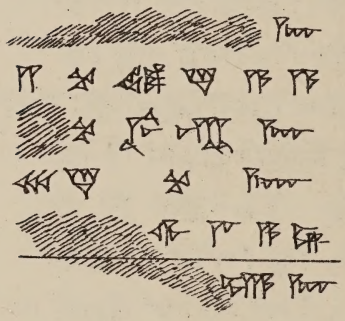
4.

No. 1103 [K. 1959.]

1. 

2.

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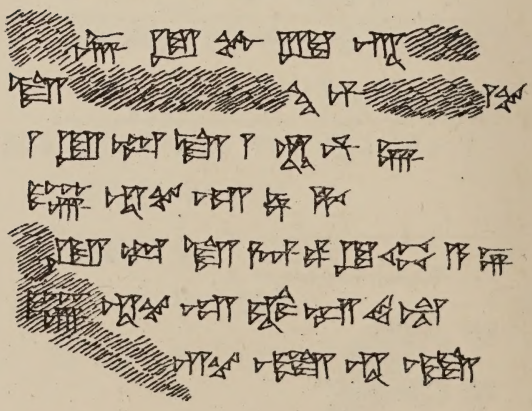
6.

No. 1104. [K. 1988.]

1. 

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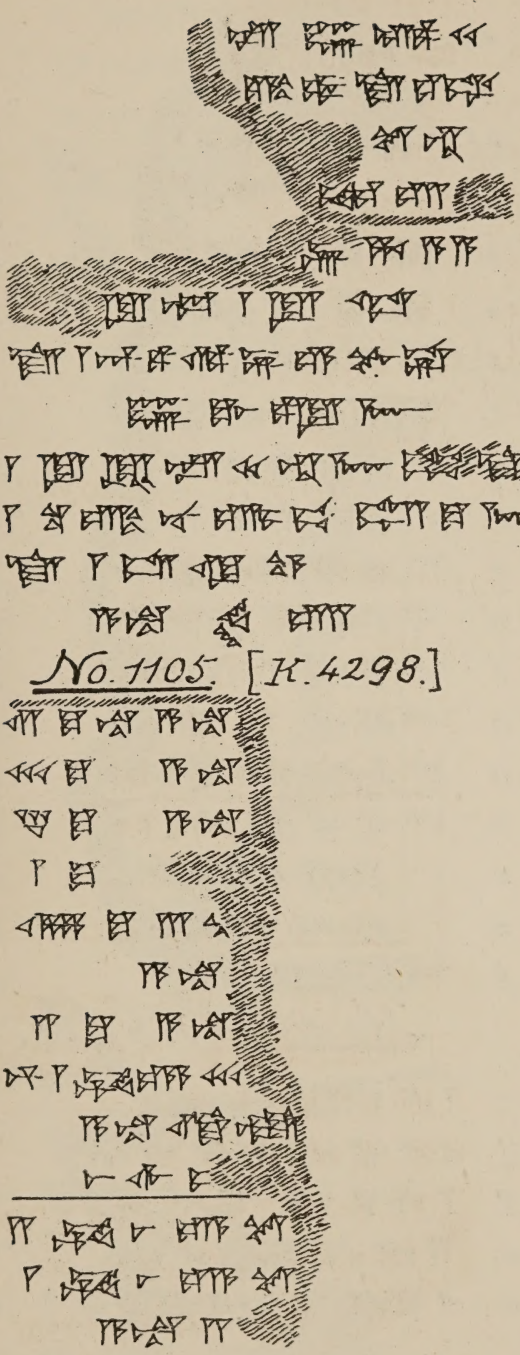
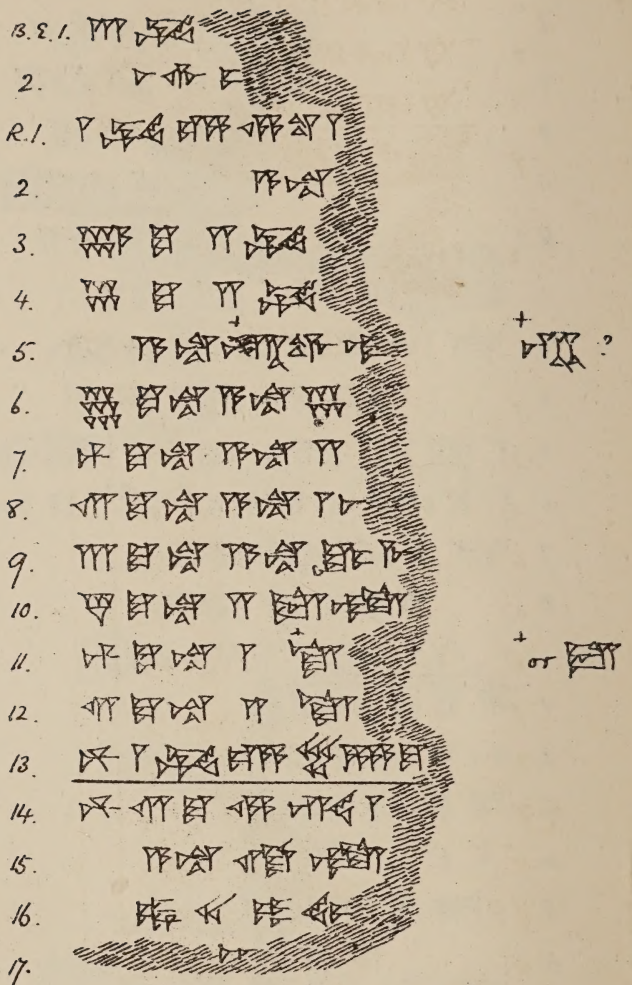
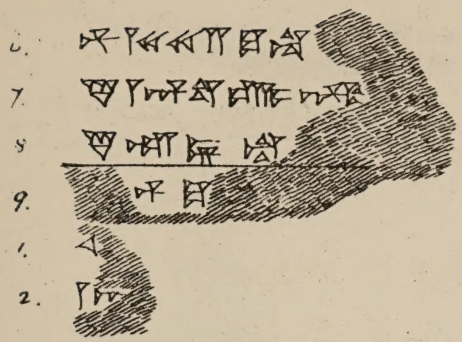
7.



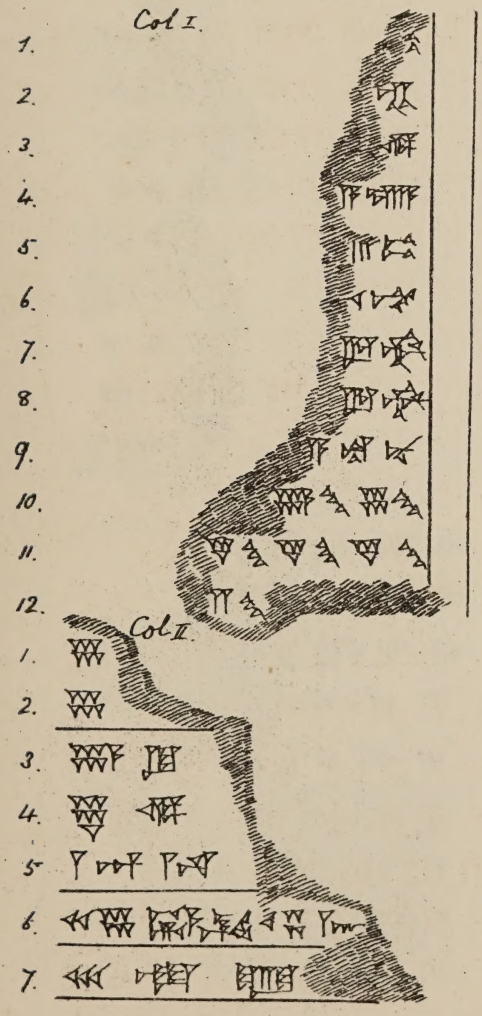
No. 1105. [K. 4298.]

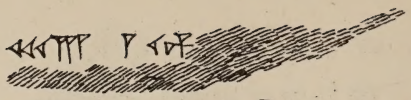


No. 1106 [K. 4771.]

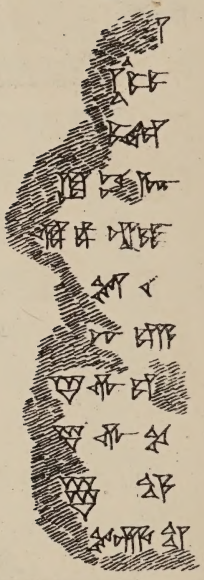


No. 1107. [K. 5184.]



8. 

No. 1108. [K. 7559.]

1. mere trace
2. "
3. "
4. 
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11.
12.
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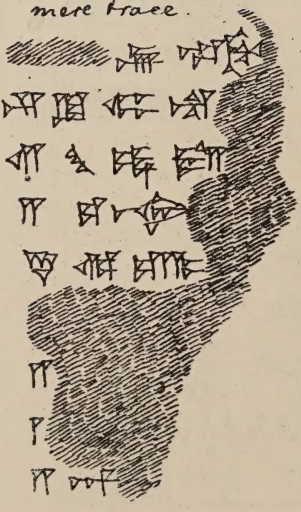
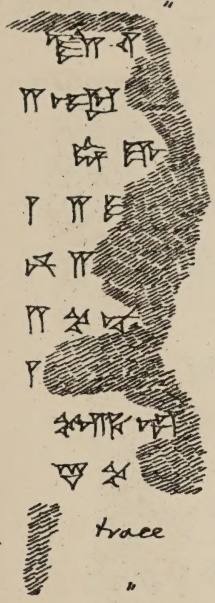
14.

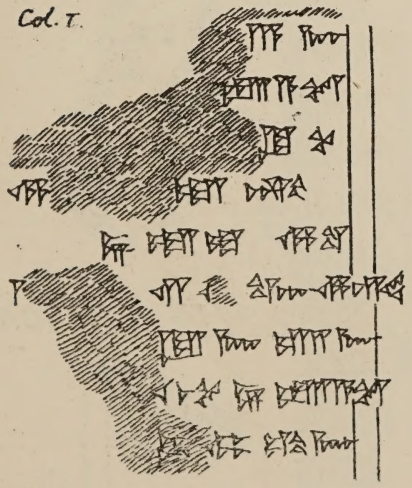
1. mere trace.
2. 
3.
4.
5.
6.
7.
8.
9.
10.

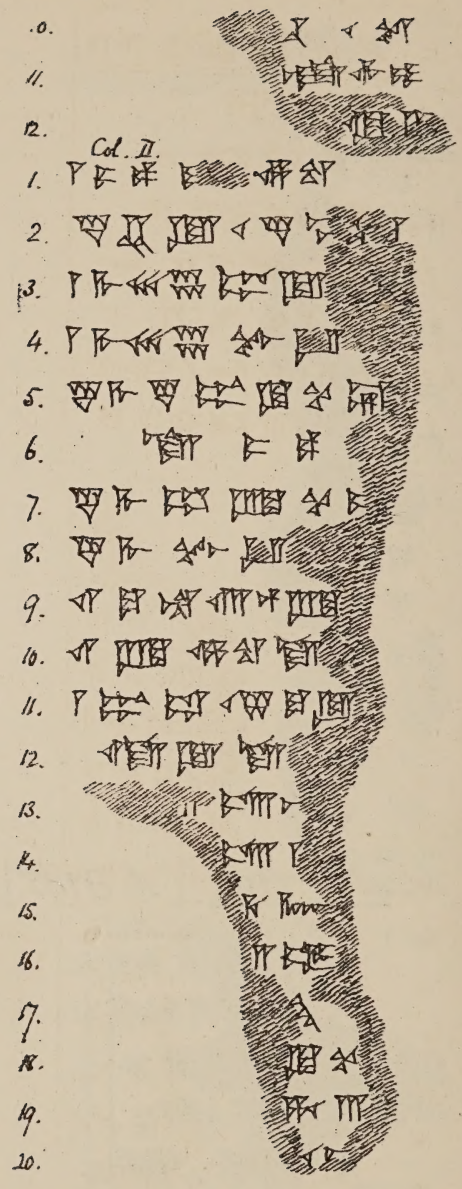
11. trace.
12. "
13. "



10. trace
11. "
12. "
13. "

No. 1109. [K. 8135.]

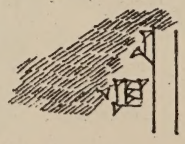


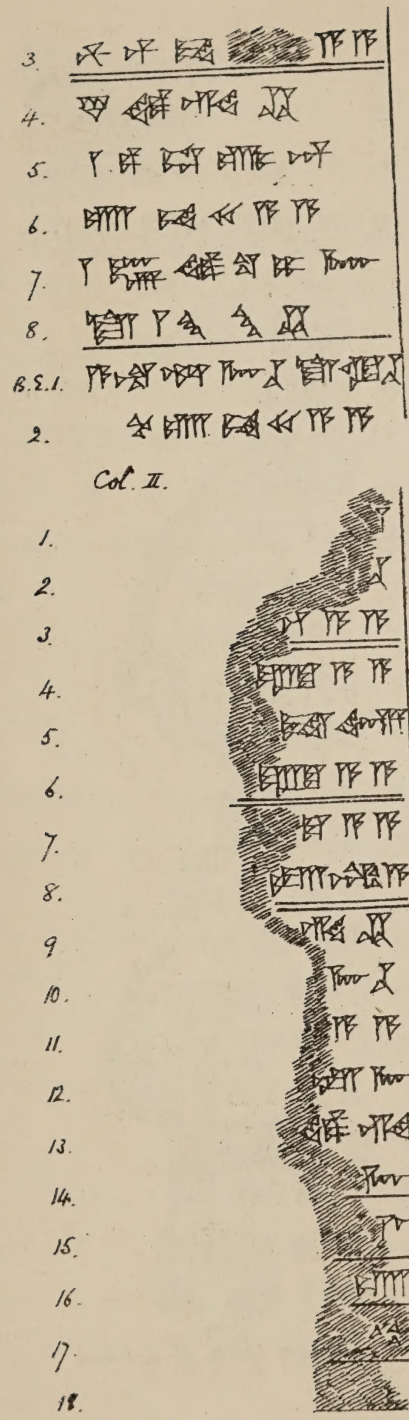


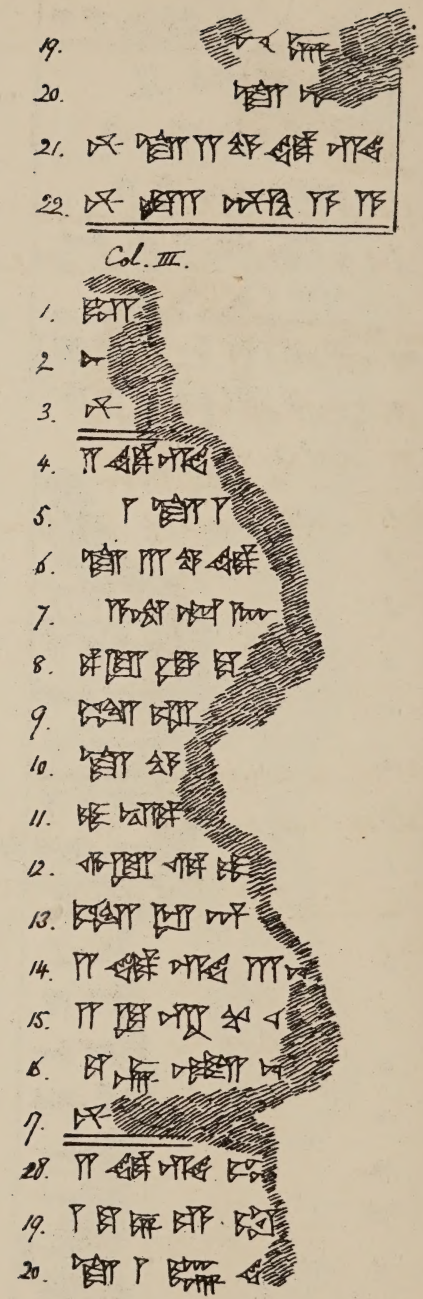
Col. II.

No. 1110. [K. 9060.]

Col. I.



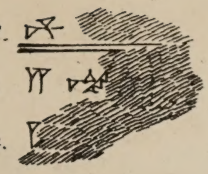

3.
4.
5.
6.
7.
8.
B.S.1.
2.
Col. II.
1.
2.
3.
4.
5.
6.
7.
8.
9
10.
11.
12.
13.
14.
15.
16.
17.
18.



Col. III.

21. Blank space of 2 lines

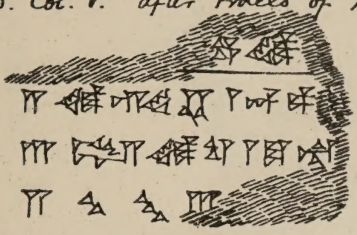
22.
23.
24.



Col. IV is completely destroyed.

Rev. Col. V. after traces of 4(?) lines.

1.
2.
3.
4.



Col. VI. after traces of 5(?) lines.

1.
2.
3.

Col. VII. is completely destroyed.

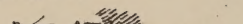
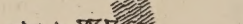
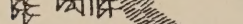
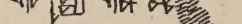
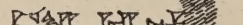
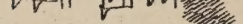
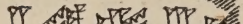
Col. VIII has traces of 4(?) lines.

No. 1111. [K. 12983.]

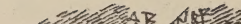
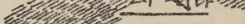
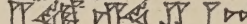
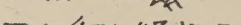
Col. I.

1.
2.
3.
4.
5.
6.
7.

Col. II. (?)

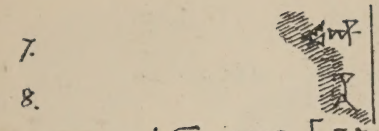
1. 
2.
3. 
4. 
5.
6. 
7. 
8. 
9. 

Col. V (?)

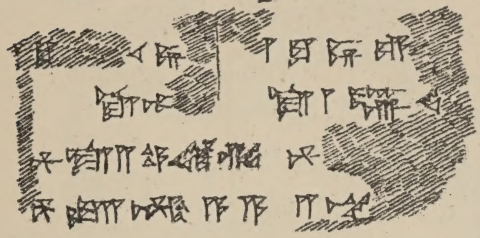
1. mere trace
2. "
3. "
4. "
5. 
6. 
7. 
8. 

Col. VI. (?)

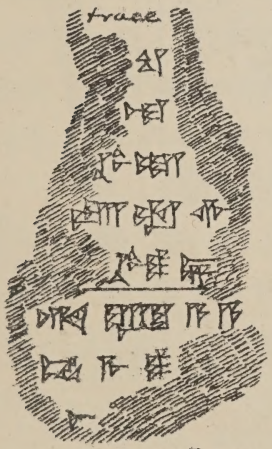
1. mere trace.
2. "
3. "
4. "
5. "
6. "



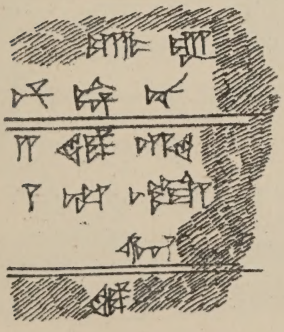
No. 1112. [K. 13214.]



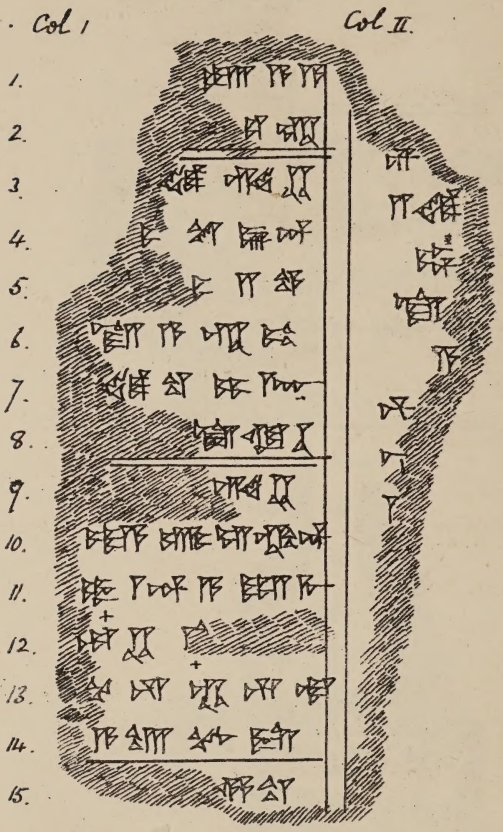
No. 1113. [K. 13216.]



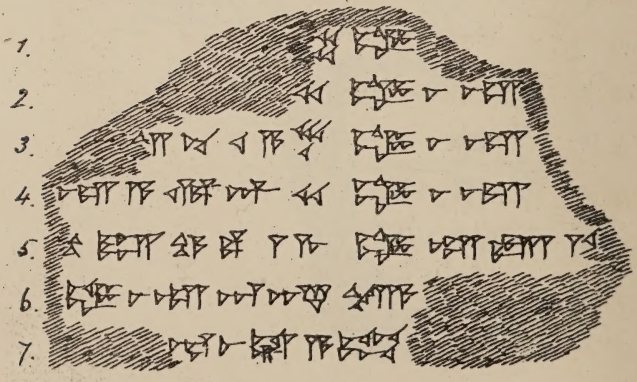
No. 1114. [K. 13223.]

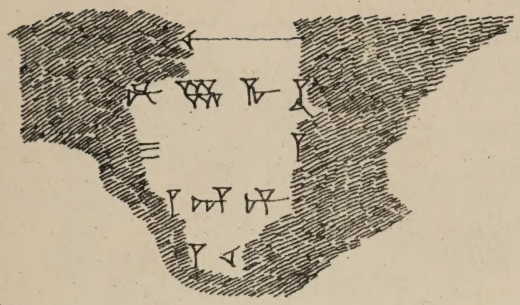


No. 1115. [K. 10329.]

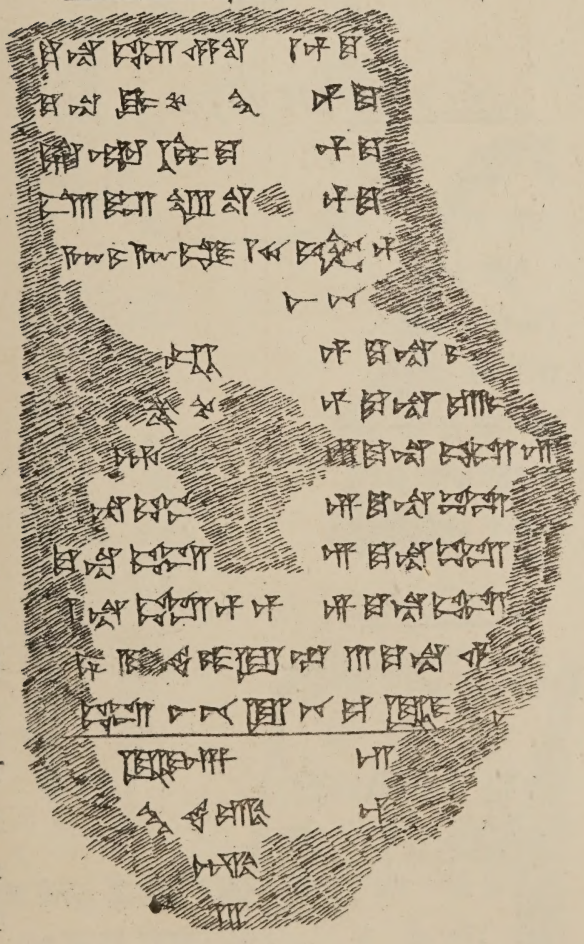


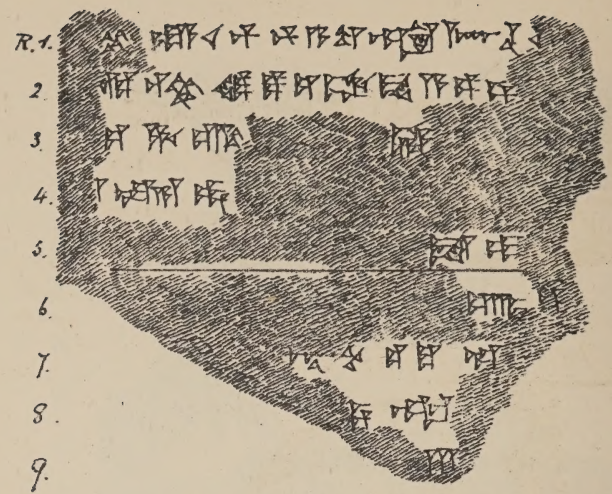
No. 1116. [K.9858.]



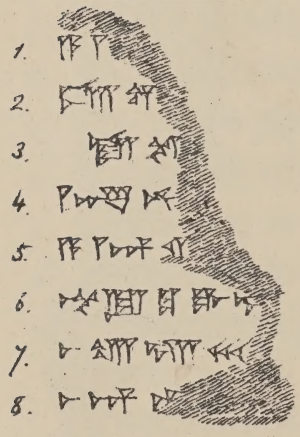


No. 1117. [K. 10422.]

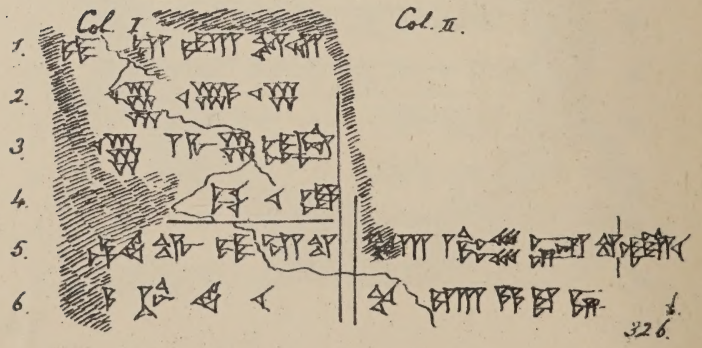


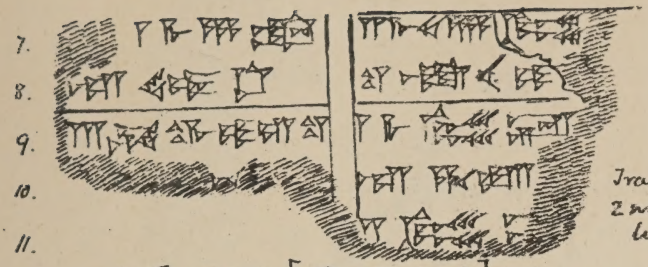


No. 1118 [K. 12784.]

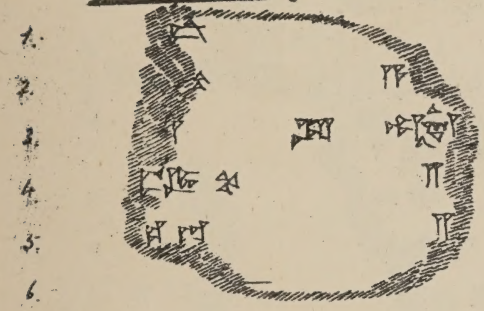


No. 1119. [Rm. 464.]

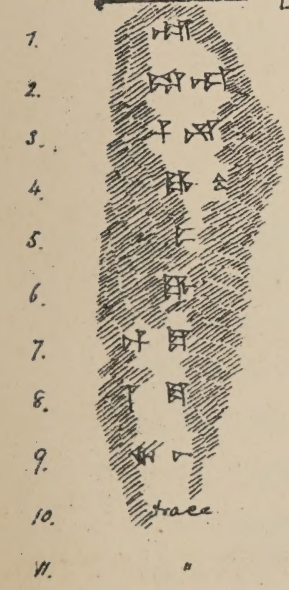




No. 1120. [Rm. II. 374.]

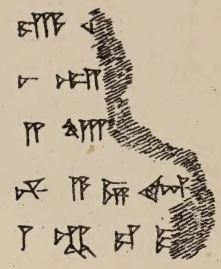


No. 1121. [Rm. 169.]

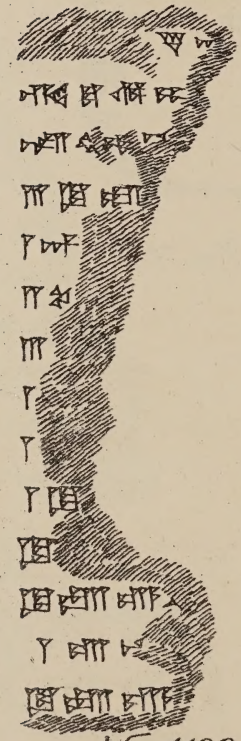


12. mere trace

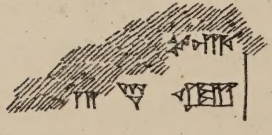
13.

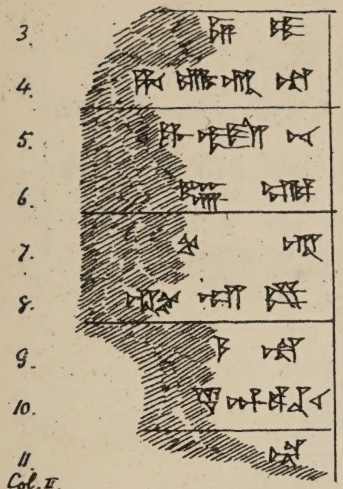


No. 1122. [79-7-8, 78.]

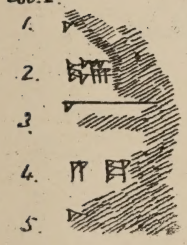


No. 1123. [82-3-23, 73.]

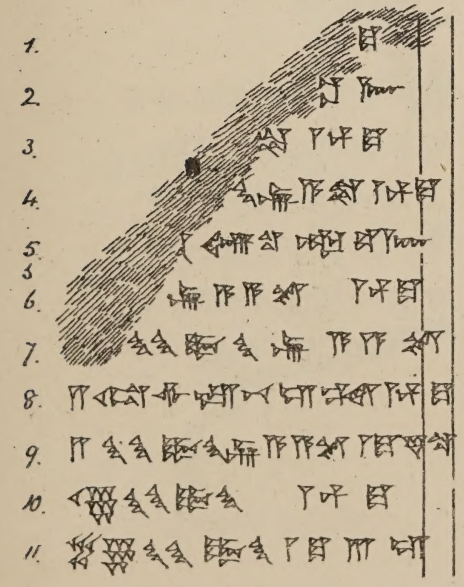


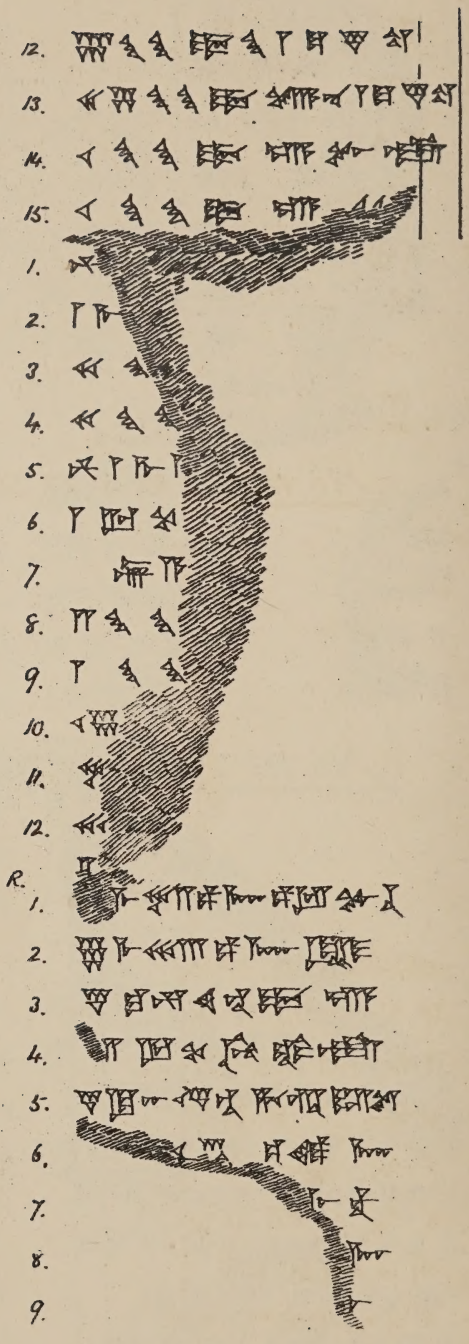


Col. II.



No. 112 [82-5-22, 513.]





1.
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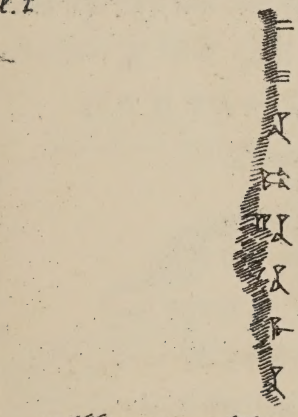
8.

No. 1125. [82-5-22, 548.]

Col. I

1. 
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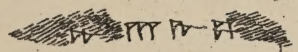
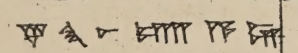
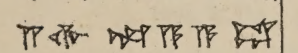
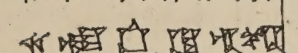
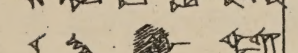
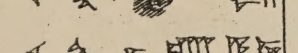
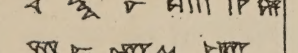
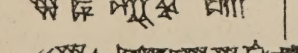
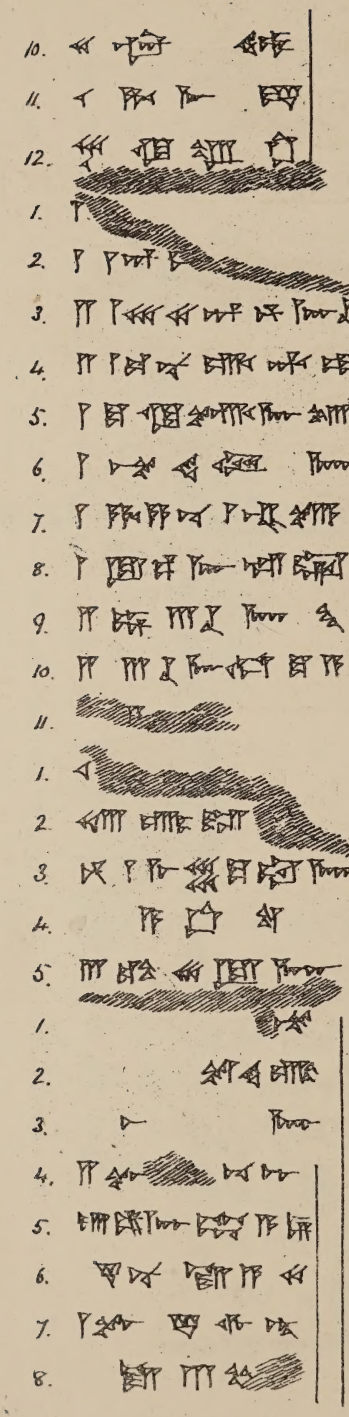
1. 
2. 
3. 
4. 
5. 
6. 
7. 
8. 



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No. 1126. [83-1-18, 351.]

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No. 1127. [83-1-18, 432.]

Col. I.
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Col. II.
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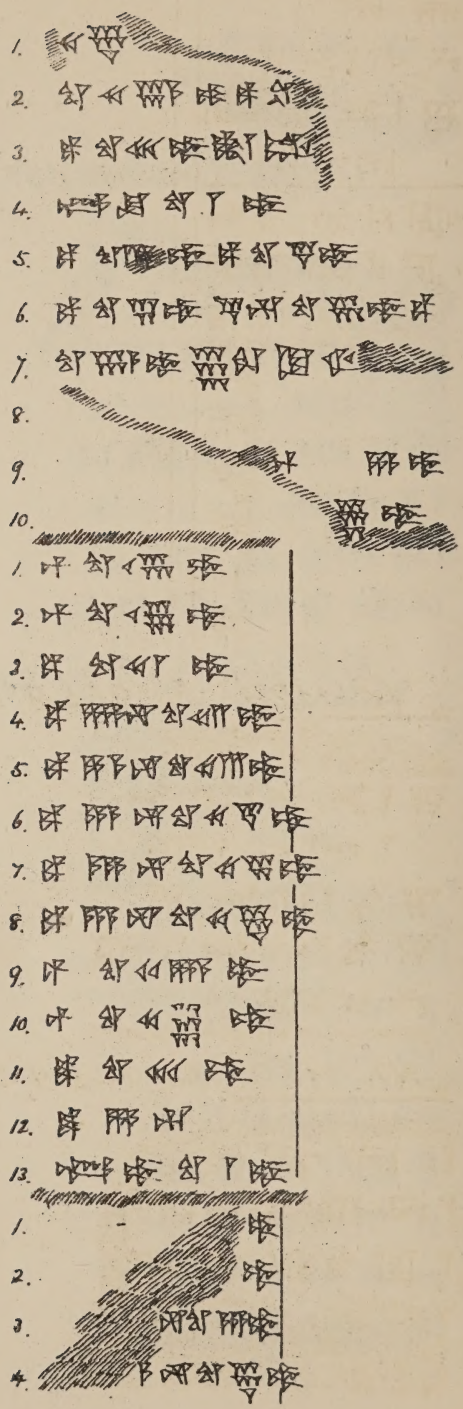
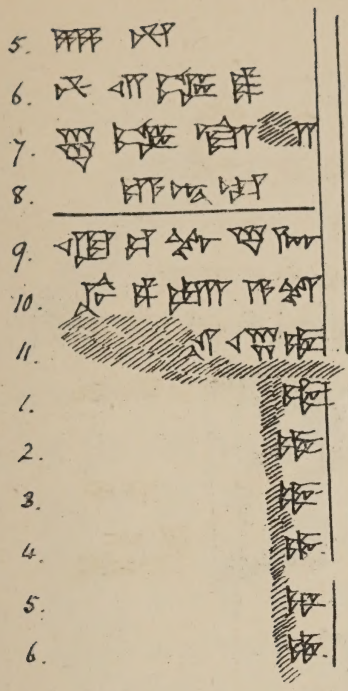
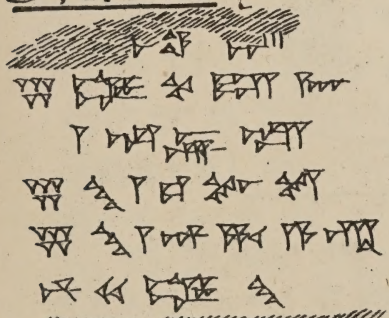
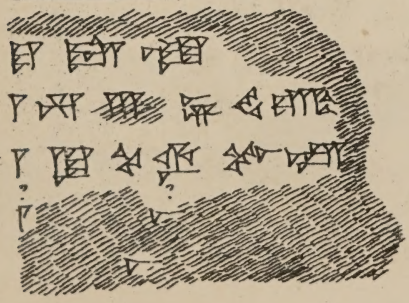


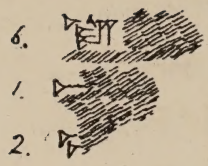


No. 1128. [Bu. 91-5-9, 65.]

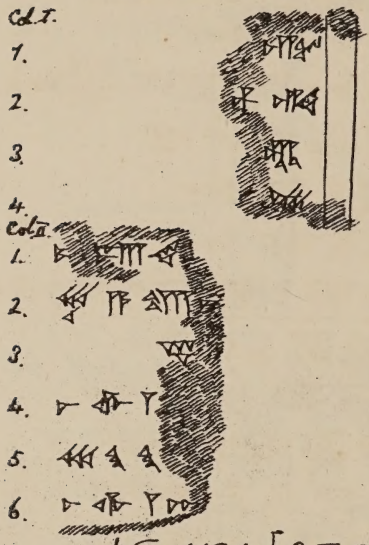


No. 1129. [Bu. 91-5-9, 35.]

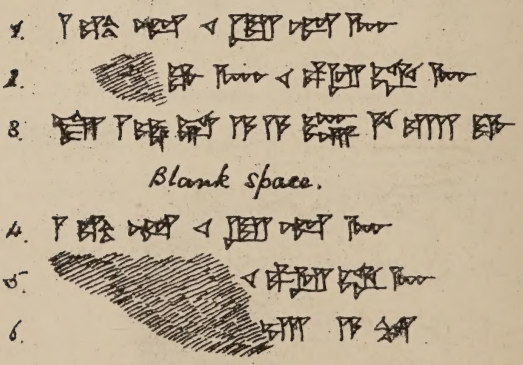




No. 1130. [Bu. 91-5-9,223.]



No. 1131. [D.T. 228.]



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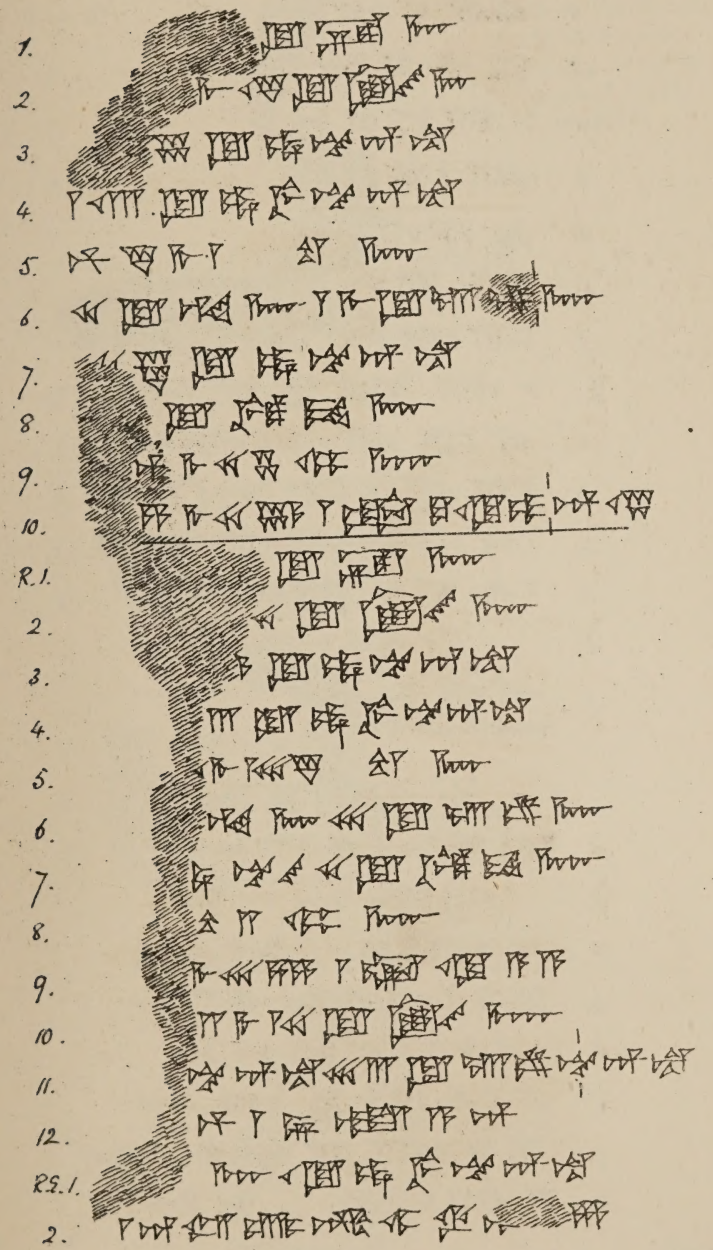
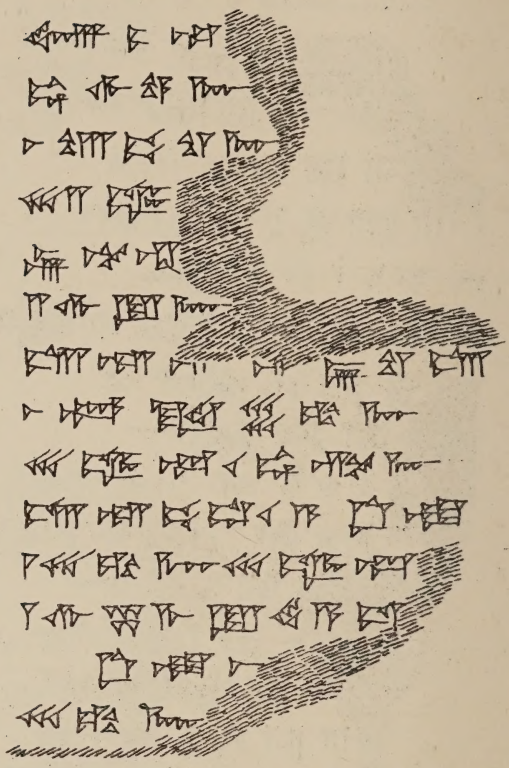
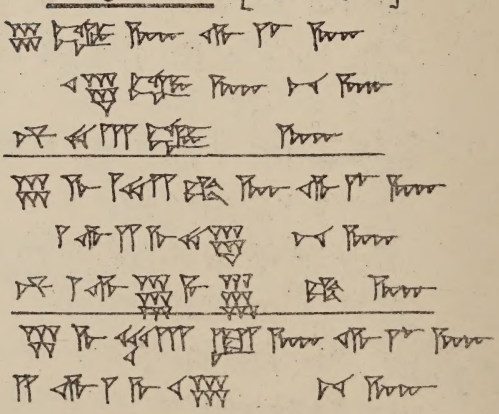
No. 1132. [K. 857.]

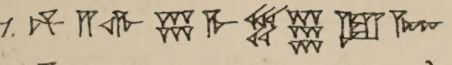


No. 1133. [K. 1092.]



No. 1134. [K. 1391.]



B.2.1. 

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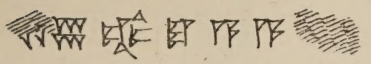
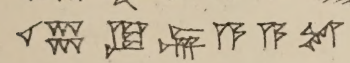
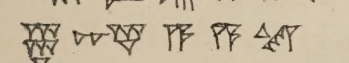
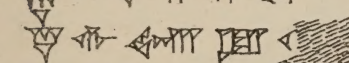
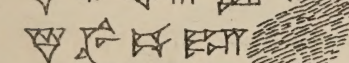
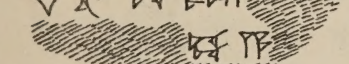
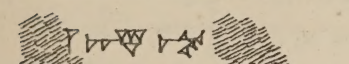
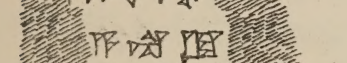
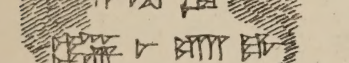
4.

These lines are covered with silica and at present quite illegible.

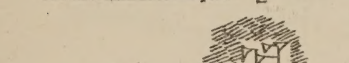
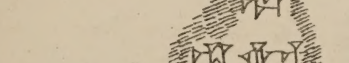
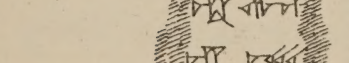
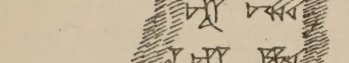
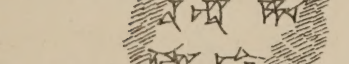
No. 1135. [K. 1944 a.]

1. 
2. 
3. 
4. 
5. 
6. 

No. 1136. [K. 1960.]

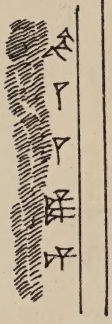
1. 
2. 
3. 

No. 1137. [K. 9074.]

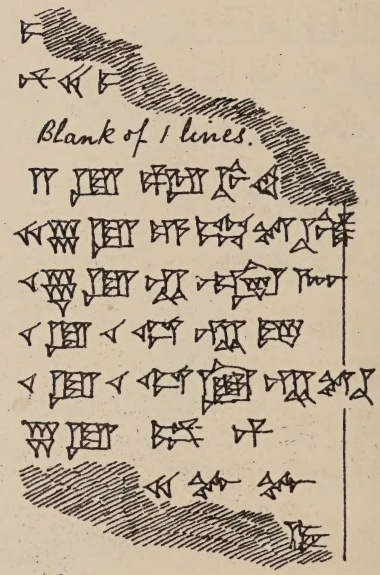
1. 
2. 
3. 
4. 
5. 

No. 1138. [K. 11420.]

Col. I.



Col. II.



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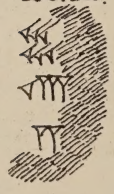
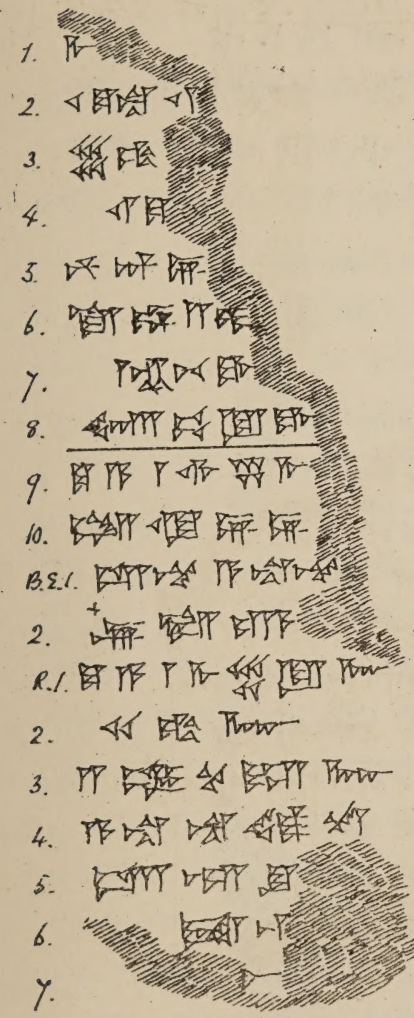
Col. III.

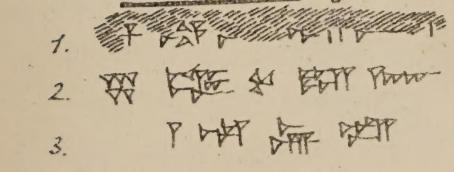


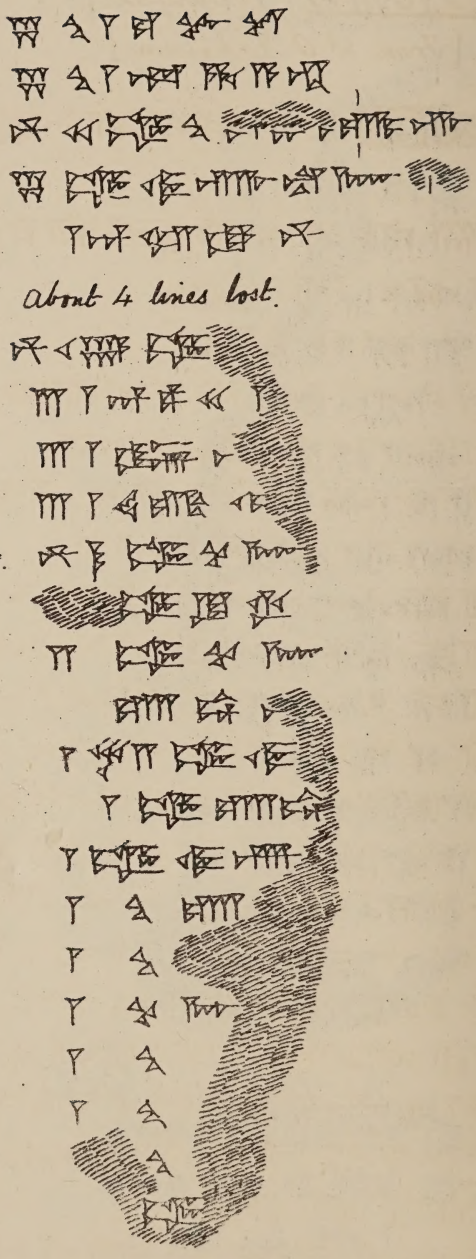
No. 1139. [K. 12985.]



+ or

No. 1140. [K. 13017.]

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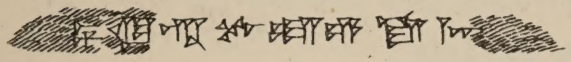
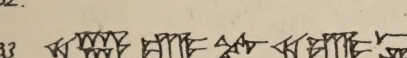
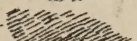
No. 1141 [Sarg. 12.]

[From S.A.V. passim.]

31. 

32.

33. 

34. 

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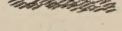
36. 

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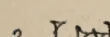
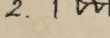
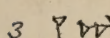
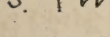
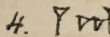
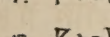
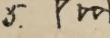
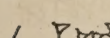
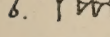
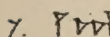
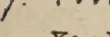
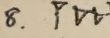
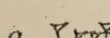
Specimen Names, Appendix.

List, No. 1. [K. 241.]

Col. I.

1. 
2. 
3. 
4. 
5. 
6. 
7. 
8. 
9. 
10. 
11. 
12. 
13. 
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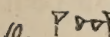
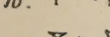
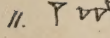
15. 
16. 
17. 
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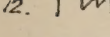
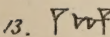
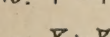
19. 
20. 
21. 
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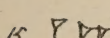
23. 

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25. + erased.

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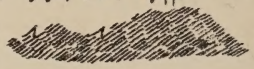
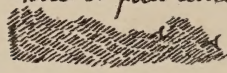
27. 

28. Three or four lines gone.

29. 

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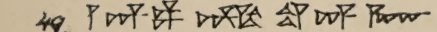
49. 
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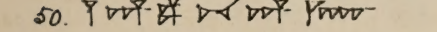
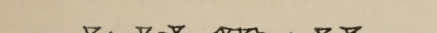
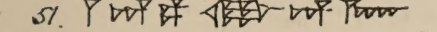
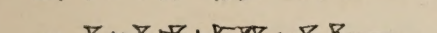
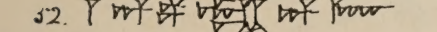
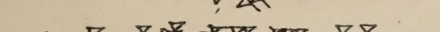
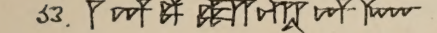
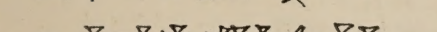
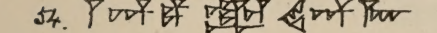
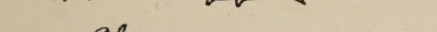
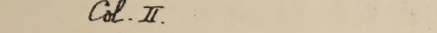
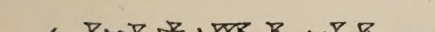
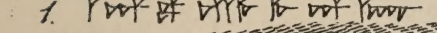
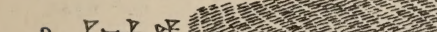
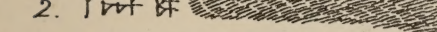
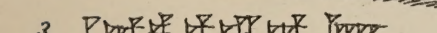
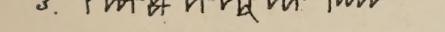
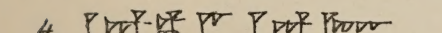
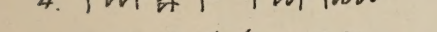
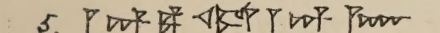
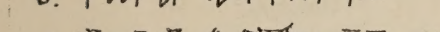
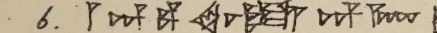
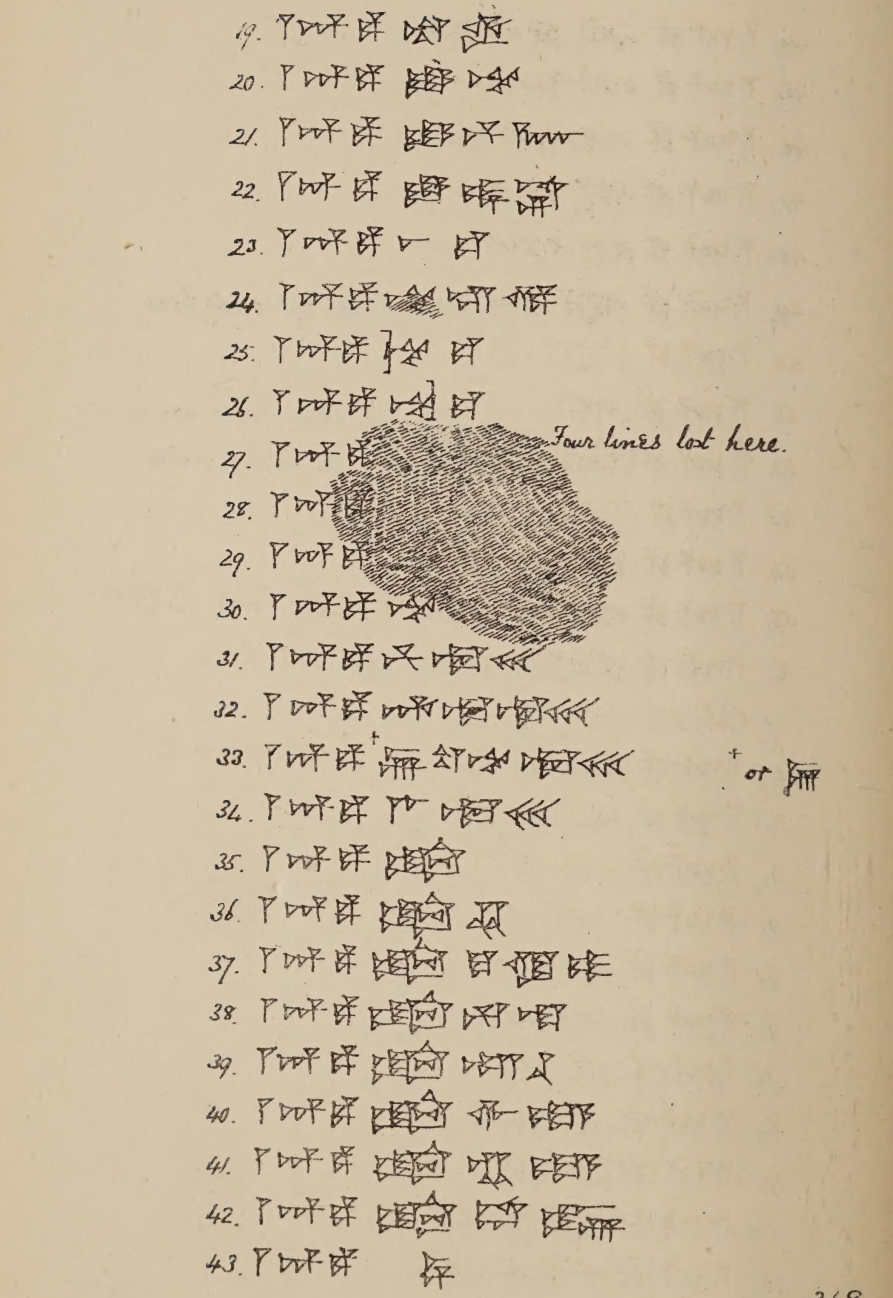
51. 
52. 
53. 
54.  *The Col. ends here.*

Col. II.

1. 
2.  *These lines are in the wrong order*
3. 
4. 
5. 
6. 
7. 
8. 
9. 
10. 
11. 
12. 
13. 
14. 
15. 
16. 
17. 
18. 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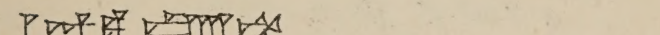
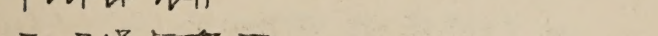
55. 
56. Col. ends here.

Col. III.

1. 
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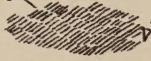

4 lines lost here.

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40. [illegible]

41. [illegible]

42. [illegible]

43. [illegible]

44. [illegible]

45. [illegible] or [illegible]

46. [illegible]

47. [illegible]

48. [illegible]

49. [illegible]

50. [illegible]

51. [illegible]

52. [illegible]

53. [illegible]

54. [illegible] [illegible] ?

55. [illegible] [illegible] ?

56. [illegible] [illegible] ?

57. [illegible] [illegible] or [illegible]

Col. IV.

1. [illegible]

2. [illegible] [illegible]

3. [illegible]

4. [illegible]

5. [illegible]

6. [illegible] [illegible]

7. [illegible] [illegible]

8. [illegible] [illegible] ?

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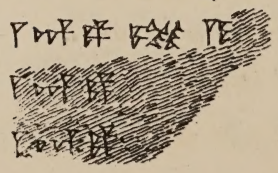

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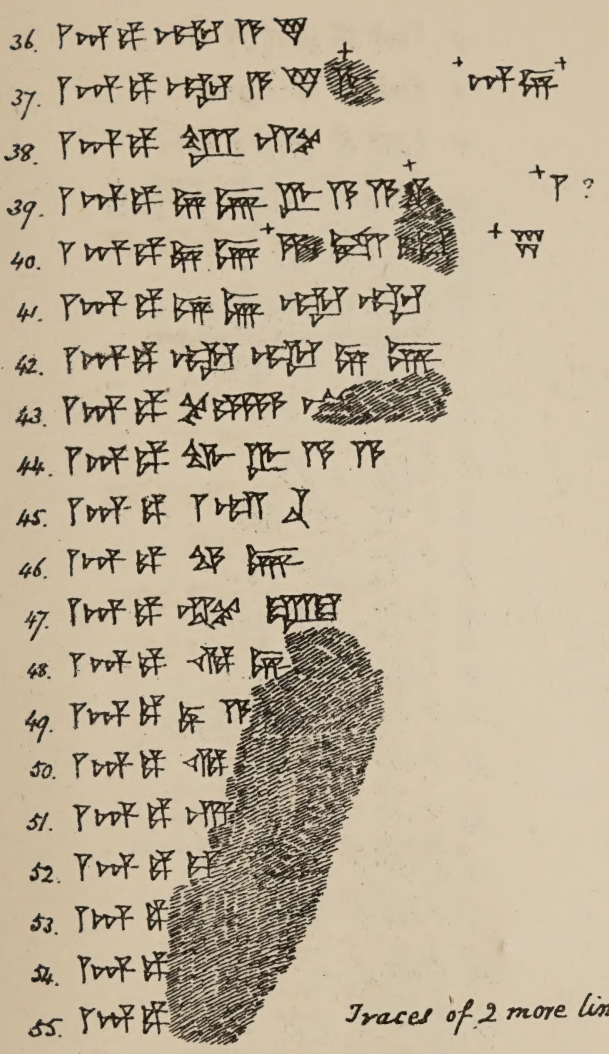
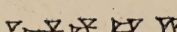
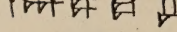
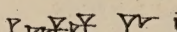
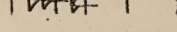
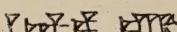
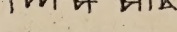
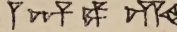
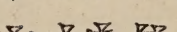
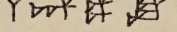
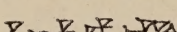
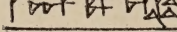
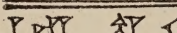
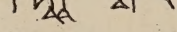
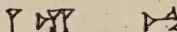
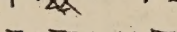
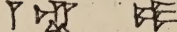
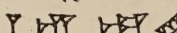
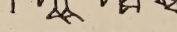
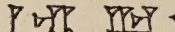
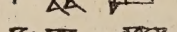
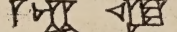
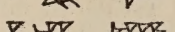


Traces of 2 more lines.

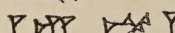
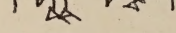
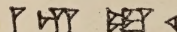
Col. V.

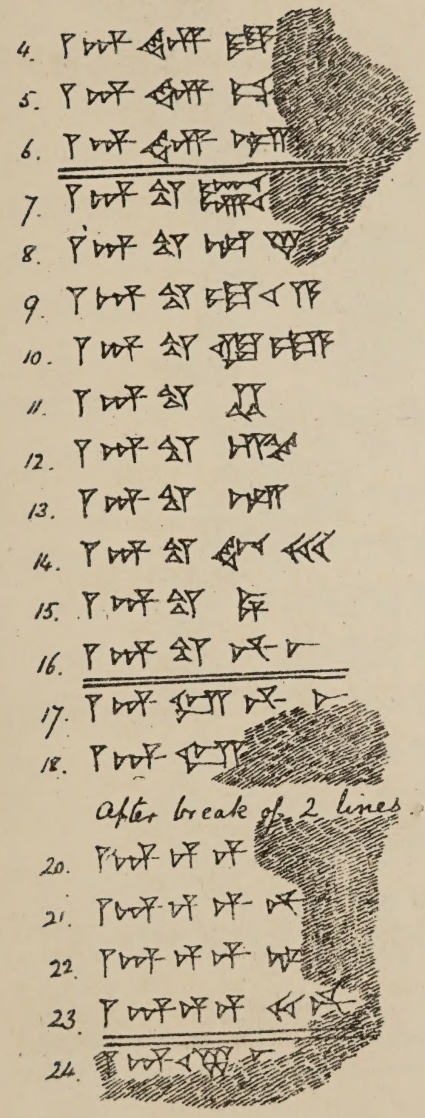
7. 
8. 
9. 
10. 
11. 
12. 

13. 
14. 
15. 
16. 
17. 
18. 
19. 
20. 
21. 
22. 

23. 
24. 
25. 
26. 
27. 
28. 

Col. VI.

1. 
2. 
3. 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After break of 2 lines.
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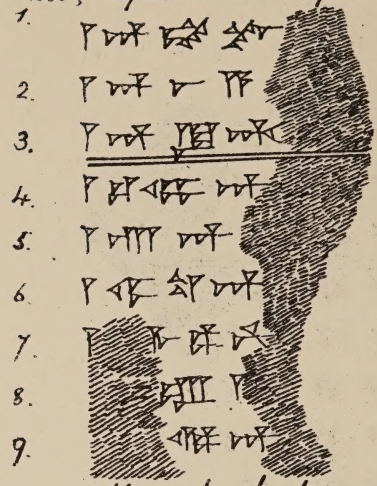
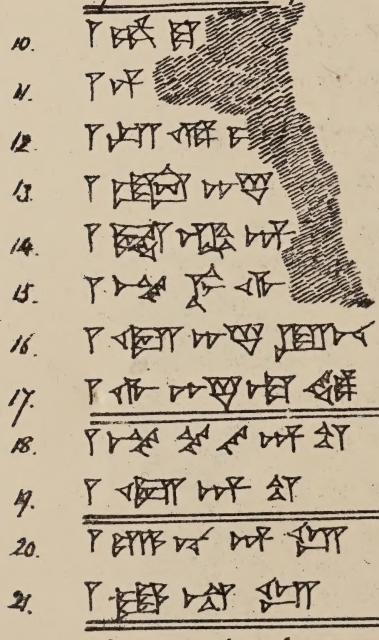
Rev., after a break of about 10 lines: Col. VII.

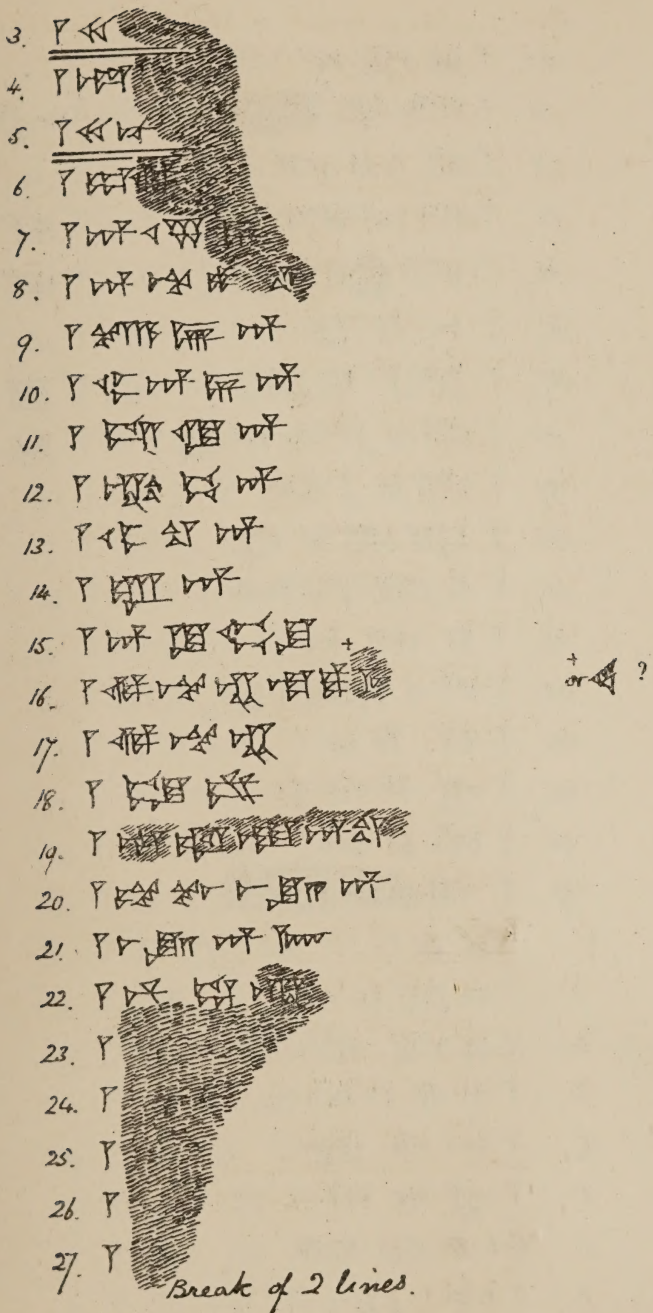


after a break of some 12 lines.

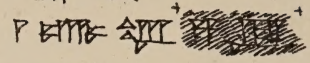
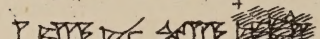
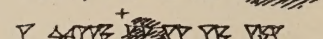


Traces of a few more lines.

Col. VIII.



Break of 2 lines.

31.
32. 
33.
34. 
35. 
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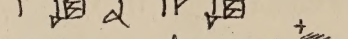
38. 
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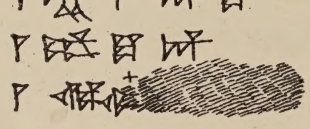
47. 

Col. IX.

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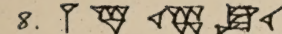
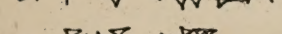
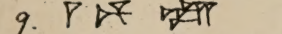
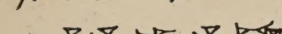
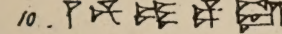
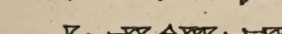
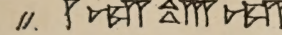
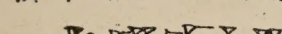
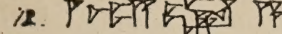
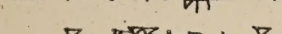
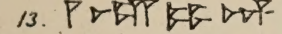
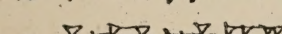
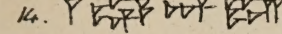
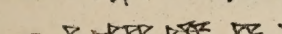
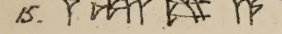
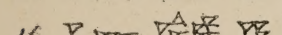
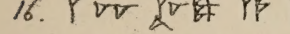
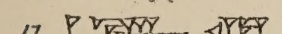
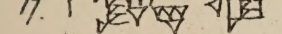
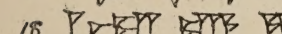
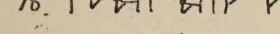
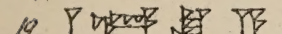
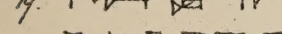
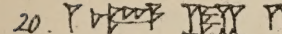
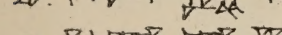
8. 
9. 
10. 
11. 
12. 
13. 
14. 
15. 
16. 
17. 
18. 
19. 
20. 
21. 
22. 
23. 
24. 
25. 
26. 
27.  *Perhaps nothing at all.*
28. 
29. 
30. 
31. 
32. 

33.

34.

35. + maybe erasure.

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45. + so, ?

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Col. X.

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3. This is probably end of line 3 in Col. XI.

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Col. XI.

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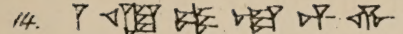
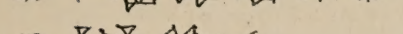
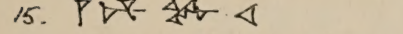
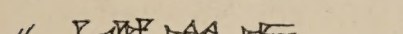
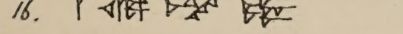
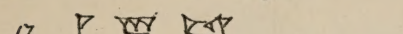
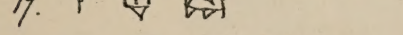
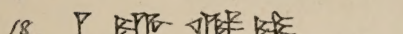
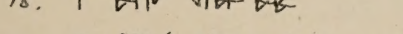
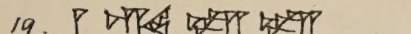
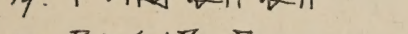
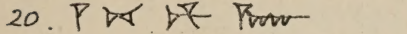
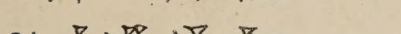
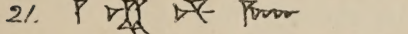
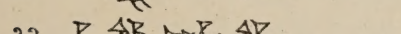
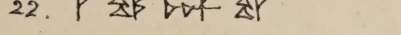
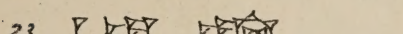
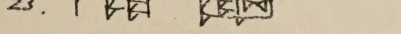
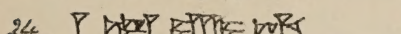
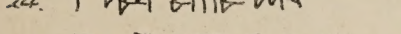
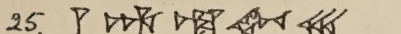
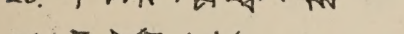
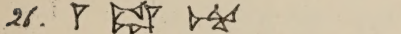
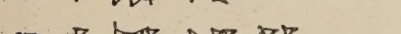
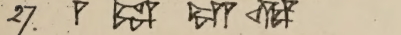
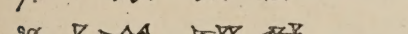
14. 
15. 
16. 
17. 
18. 
19. 
20. 
21. 
22. 
23. 
24. 
25. 
26. 
27. 
28. 
29. 
30. 
31. 
32. 
33. 
34. 
35. 
36. 
37. 
38. 
39. 

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Col. XII.

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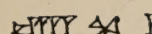
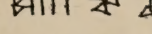
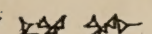
22. 

23. 

24. 

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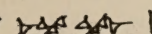
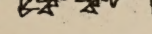
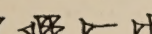
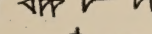
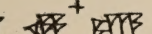
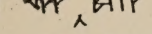
26. 

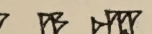
27. 

28. 

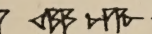
29. 

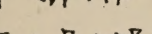
30. 

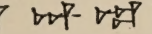
31. 

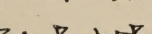
32. 

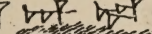
Break of 4 lines

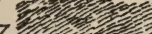
37. 

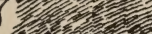
38. 

39. 

40. 

41. 

42. 

43. 

No. 2 [Sm. 55 + Rm. 567.]

Col. I.

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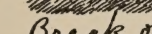
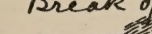
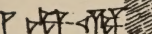
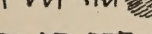
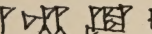
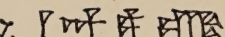
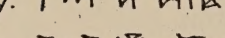
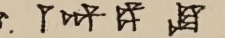
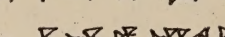
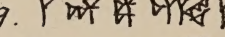
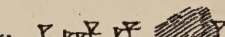
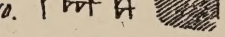
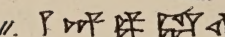
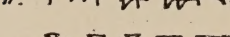
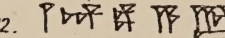
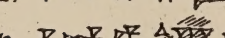
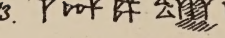
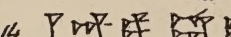
2. 

3. 

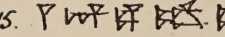
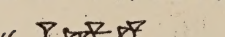
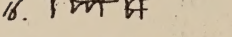
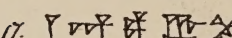
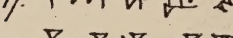
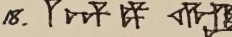
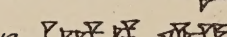
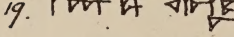
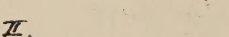
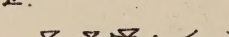
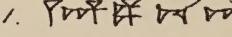
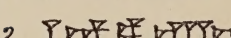
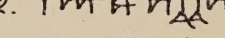
4. 

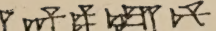
5. 

6. 

7. 
8. 
9. 
10. 
11. 
12. 
13. 
14. 
15. 
16. 
17. 
18. 
19. 

Col. II.

1. 
2. 
3. 
4. 
5. 
6. 
7. 
8. 
9. 
10. 
11. 
12. 
13. 

14. 

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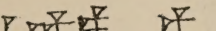
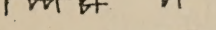
16. 

17. 

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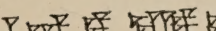
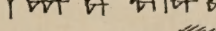
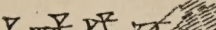
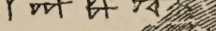
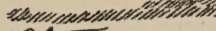
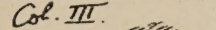
1. 

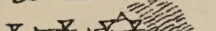
2. 

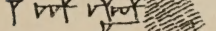
3. 

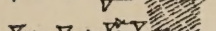
4. 

5. 

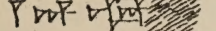
6. 

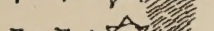
7. 

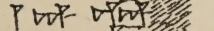
8. 

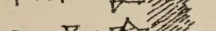
9. 

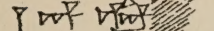
Rev. Col. XI.(?)

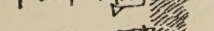
1. 

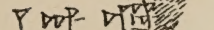
2. 

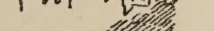
3. 

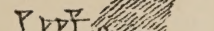
4. 

5. 

6. 

7. 

8. 

9. 

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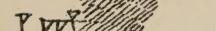
11. 

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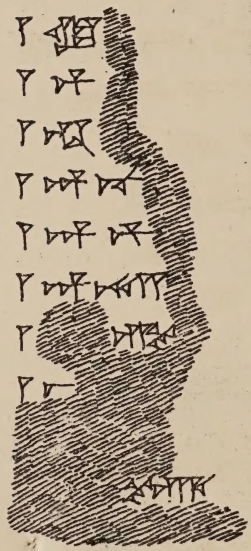
Col. XIII



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No. 3. [83-1-18, 695.]

Col. I.

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Col. II.

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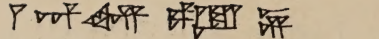
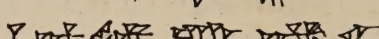
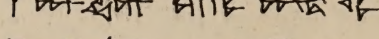
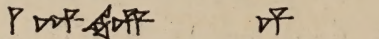
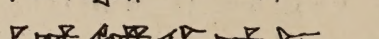
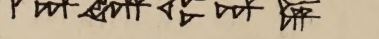
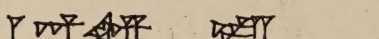
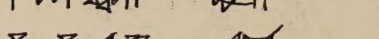
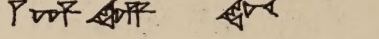
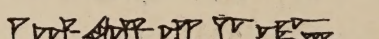
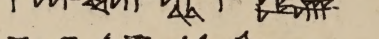
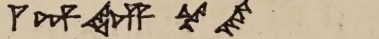
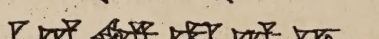
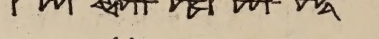
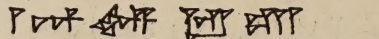
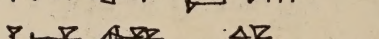
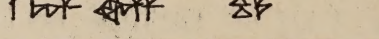
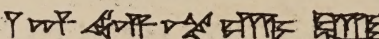
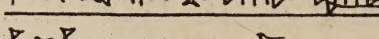
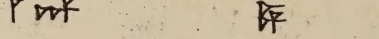
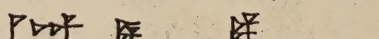
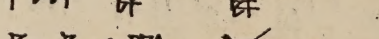
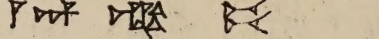
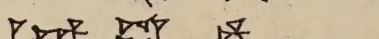
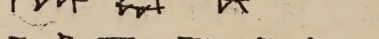
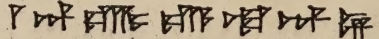
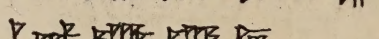
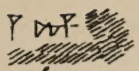
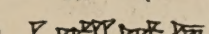
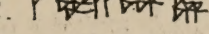
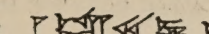
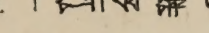
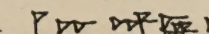
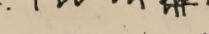
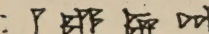
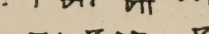
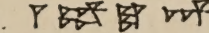
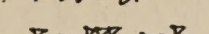
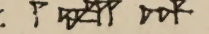
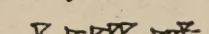
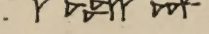
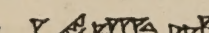
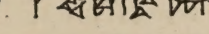
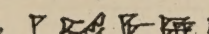
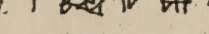
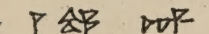
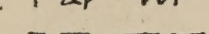
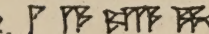
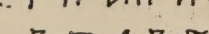
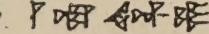
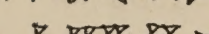
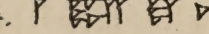
10. 
11. 
12. 
13. 
14. 
15. 
16. 
17. 
18. 
19. 
20. 
21. 

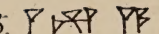
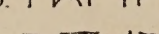
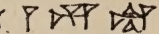
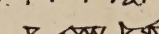
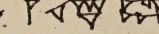
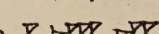
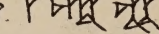
22. 
23. 
24. 
25. 
26. 
27. 
28. 
29. 
30. 
31. 
32. 
33. 
34. 
35. 
36. 

37. 

Col. III.

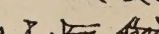
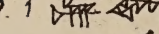
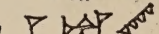
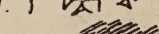
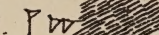
after a break of about 7 lines

1. 
2. 
3. 
4. 
5. 
6. 
7. 
8. 
9. 
10. 
11. 
12. 
13. 
14. 
15. 
16. 
17. 
18. 
19. 
20. 
21. 
22. 
23. 
24. 

25. 
26. 
27. 
28. 
29. 
30. 
31. 

Col. IV.

after a break of 8 lines.

1. 
2. 
3. 
4. 
5. 
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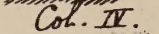
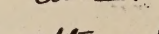
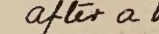
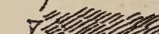
7. 
8. 
9. 
10. 
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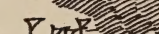
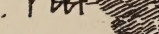
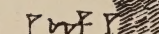
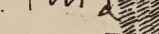
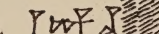
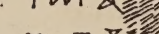
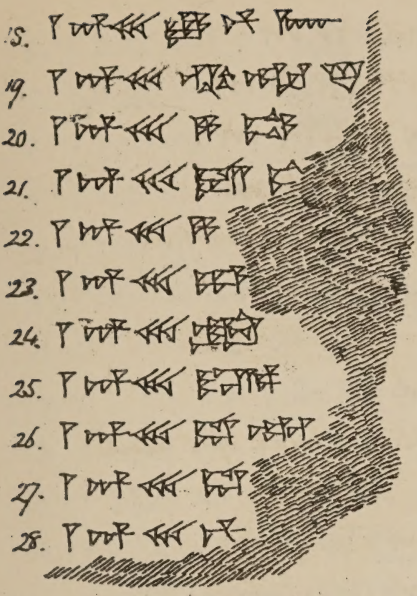
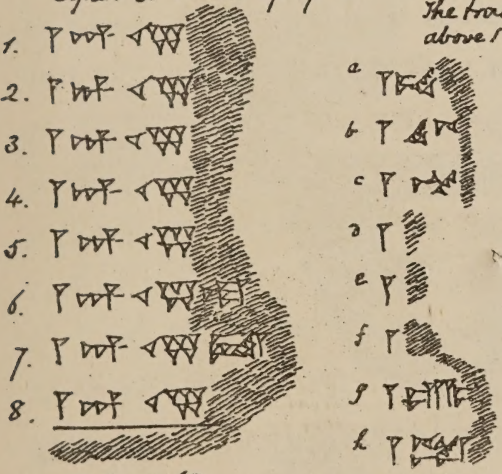
12. 
13. 
14. 
15. 
16. 
17. 



Rev. Col X(?)

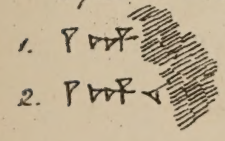
After a break of 17 lines.

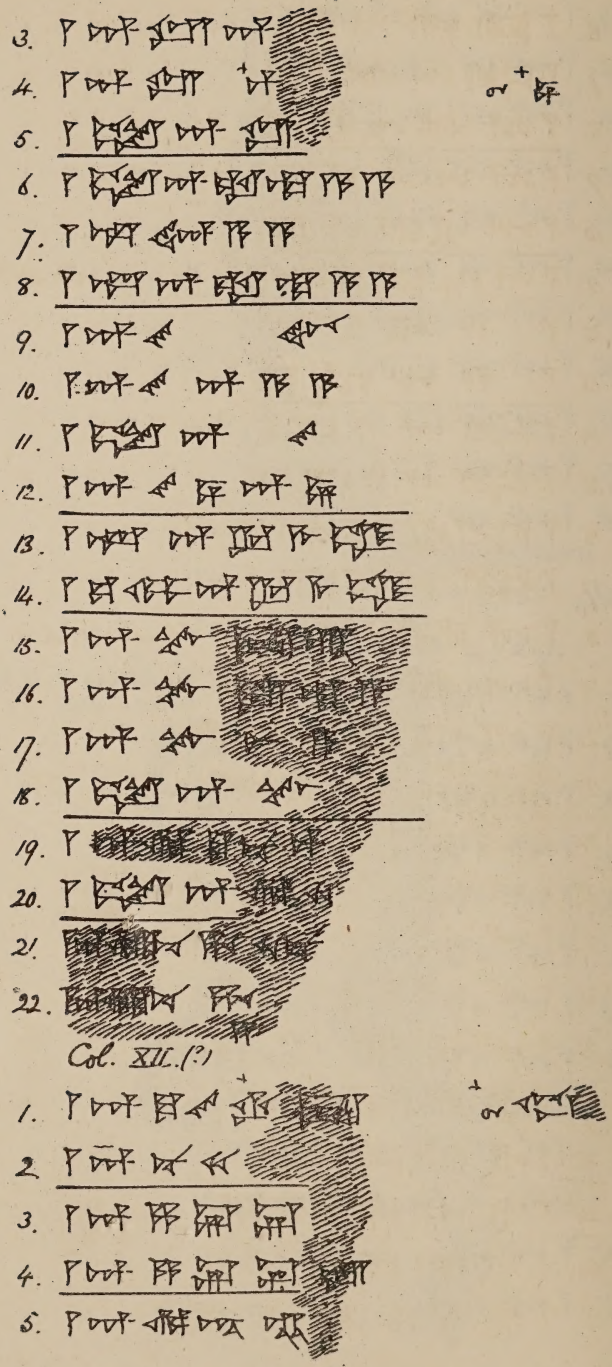
The traces of 8 lines above 1 are.



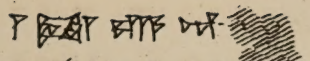
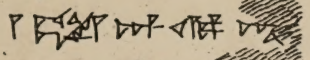
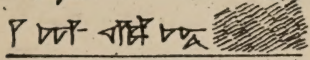
Col. XI (?)

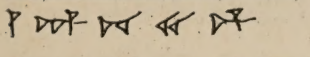
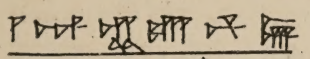
After a break of 13 lines.

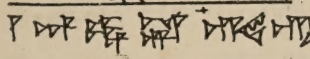
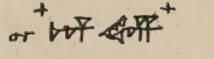
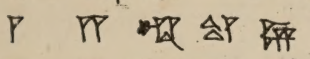
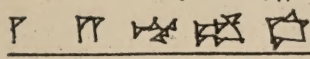


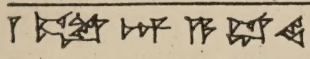
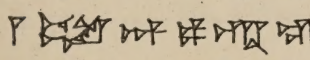
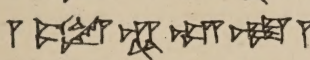
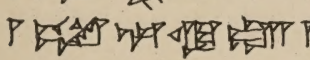
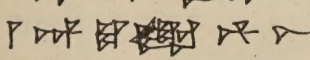
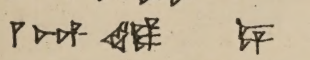
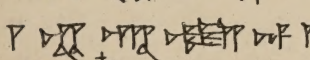
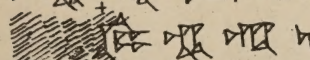
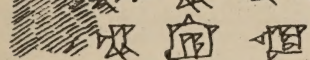
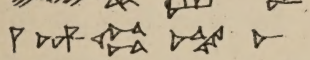
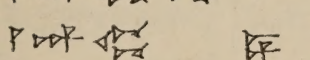
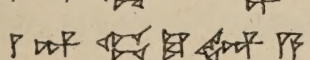
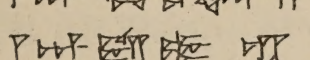
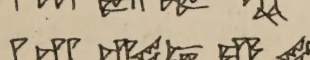
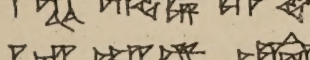
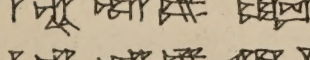
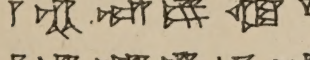
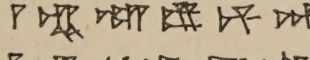


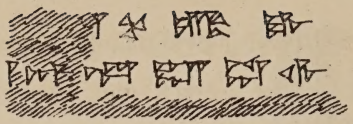
Col. XII.(?)

6. 
7. 
8. 

9. 
10. 

11.  or 
12. 
13. 

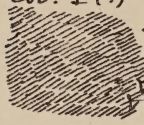
14. 
15. 
16. 
17. 
18.  } Wrong order.
19.  }
20. 
21 
22 
23. 
24. 
25. 
26. 
27. 
28. 
29. 
30. 
31. 

32. 

33.

No. 4. [83-1-18, 715.]

Col. I (?)

1. 

2.

3.

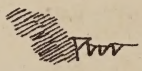
4.

5.

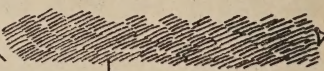
6.

7. mere trace.

Col. II.?

1. 

No. 5. [K. 5656.]

1. 

2.

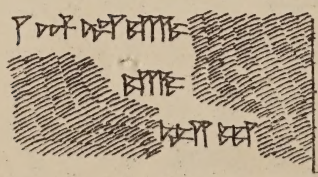
3.

4.

5.

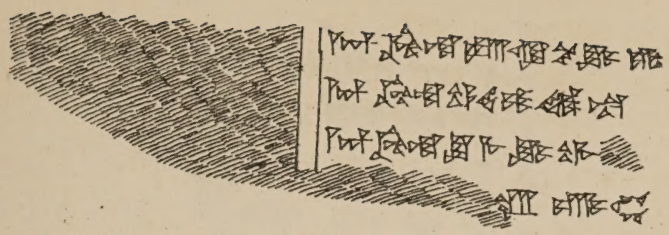
6.

Rev.

1. 

2.

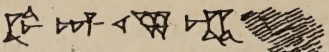
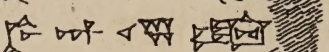
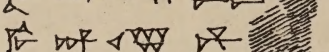
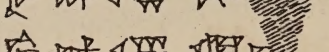
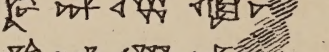
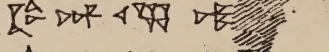
3.



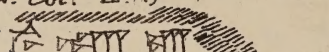
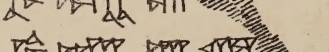
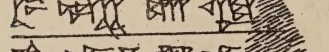
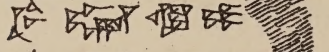
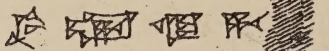
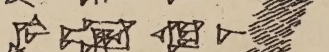
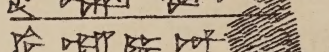
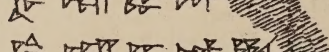
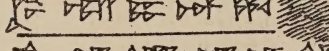
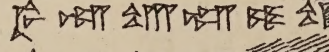
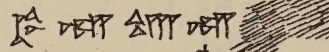
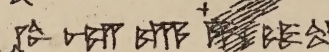
No. 6. [81-2-4, 253.]

Col. I.

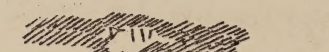
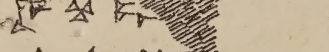
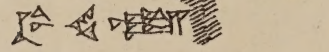
Col. II.

7. 
8. 
9. 
10. 
11. 
12. 

Res. Col. VII.(?)

1. 
2. 
3. 
4. 
5. 
6. 
7. 
8. 
9. 
10. 
11. 
12. 

Col. VIII.(?)

1. 
2.
3.
4. 
5. 

6.
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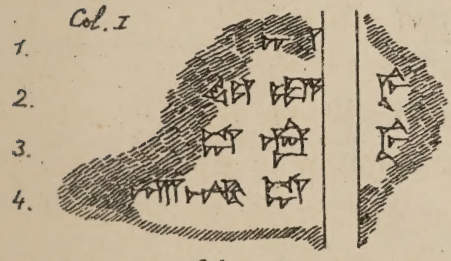
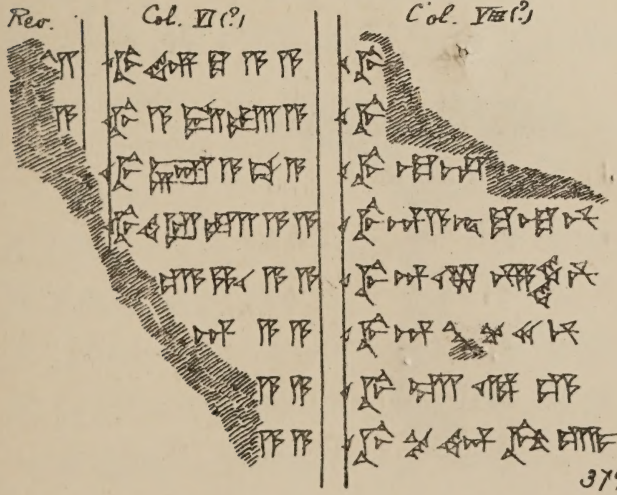
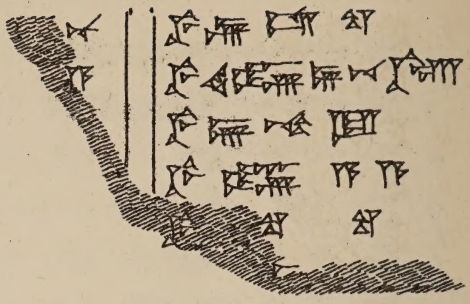
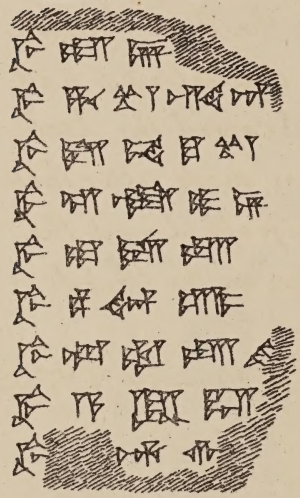
No. 7. [82-3-23, 135.]



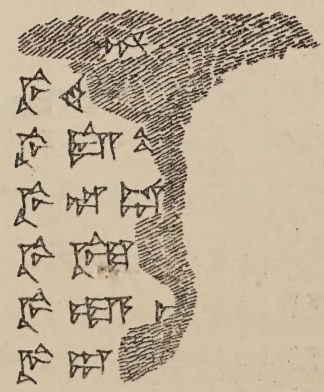


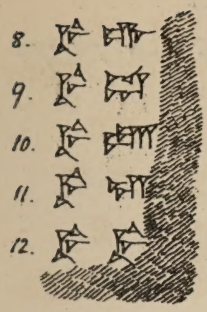


No. 8. [Bu. 89-4-26, 38.]



No. 9. [Bu. 89-4-26, 73.]





Appendix 2. List of additional joins made by me since the First Volume was printed. Those underlined had been made before I copied the texts. Those marked * were made after these texts had been autographed and the additions will appear in the Third Volume.

1. K.399+K.7357+K.10448+K.13056.
2. K.1458+K.1552.
3. K.1473+K.10447.
4. K.1749+K.1753+K.1765+K.4291 +K 6236+K.9797+K.11937 +K.13448+K.14249*+K.14312* +K.14271.*
5. K.1989+K.4467+Bu. 91-5-9, 193.
6. K.2844+K.11454.
7. K.3146+K.7349+K.7400+K.13192.
8. K.3409+K.6065+K.6223+K.6339 +K.8856+K.10431+K.10727.

9. K.3610 + K.7330 + K.13114.
10. K.4686 + K.10119 + K.12965 + K.13079 + K.13196.
11. K.4782 + K.10451.
12. K.7387 + K.12843.
13. K.7702 + K.13198.
14. K. 8093 + Rm. II. 23.
15. K. 8103 + K.8774.
16. K. 8143 + 80-7-19, 105.
17. K. 8835 + K.10335.
18. K. 9060 + K.12983 + K.12988 + K.13200 + K.13214.
19. K. 9162 + K. 14260.*
20. K. 9984 + K. 10191.
21. K. 9996 + K. 14270* + K. 14309.*
22. K. 10345 + D.T. 55.
23. K. 10412 + 80-7-19, 345.
24. K. 10867 + K. 14311.*
25. K. 11378 + K. 13043.
26. K. 11441 + K. 11463.
27. K. 11914 + A2-3-23, 70.
28. K. 13017 + Rm. 1022 + Bu. 91-5-9, 65.
29. K. 13112 + Sm. 189 + Sm. 347 + 82-3-23, 87.
30. Sm. 360 + Sm. 434.
31. Sm. 992 + Sm. 1731.
32. Sm. 1001 + Rm. 464 + Rm. 594.

Appendix 3.

Oppert's GUR-KA scale.

	= 180		= 36
	= 6		= 72
	= 12		= 108
	= 18		= 144
	= 24		
	= 30		
	= 42		= 114
	= 48		= 120
	= 54		= 126
	= 60		= 132
	= 66		= 136
	= 78		= 150
	= 84		= 156
	= 90		= 162
	= 96		= 168
	= 102		= 174

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